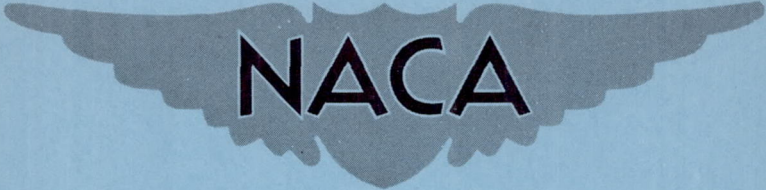


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RESEARCH MEMORANDUM

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A FENCE AND
A LEADING-EDGE NOTCH ON THE AERODYNAMIC LOADING
CHARACTERISTICS IN PITCH OF A 45° SWEPTBACK
WING AT HIGH SUBSONIC SPEEDS

By Richard E. Kuhn, James W. Wiggins,
and Andrew L. Byrnes, Jr.

Langley Aeronautical Laboratory
Langley Field, Va.

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**NATIONAL ADVISORY COMMITTEE
FOR AERONAUTICS**

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RESEARCH MEMORANDUM

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A FENCE AND

A LEADING-EDGE NOTCH ON THE AERODYNAMIC LOADING

CHARACTERISTICS IN PITCH OF A 45° SWEEPBACK

WING AT HIGH SUBSONIC SPEEDS

By Richard E. Kuhn, James W. Wiggins,
and Andrew L. Byrnes, Jr.

SUMMARY

An investigation has been conducted in the Langley high-speed 7-by 10-foot tunnel to determine the aerodynamic loading characteristics of a 45° sweptback wing of aspect ratio 4, taper ratio 0.6, and an NACA 65A006 airfoil section. The investigation included the effects of fences and leading-edge notches over a Mach number range from 0.50 to 0.95 and an angle-of-attack range from 0° to about 25° .

The results indicate that, at Mach numbers below 0.93, the fences were effective in improving the lifting ability of the portion of the wing outboard of the fence in the angle-of-attack range from about 8° to about 17° . Above 20° at Mach numbers of 0.50 and 0.70, the fences were ineffective. The fences delayed the inward movement of the lateral center of pressure to a higher angle of attack but did not show any tendency to move the lateral center of pressure farther outboard than the most outward position shown for the clean wing. A limited investigation (at Mach numbers of 0.70 and 0.91) of the effect of a small leading-edge notch indicated that the effects were similar to, but smaller than, the effects shown by the fence.

INTRODUCTION

The aerodynamic loading characteristics of a 45° swept-wing-body combination in pitch, sideslip, and steady roll have been investigated in the Langley high-speed 7-by 10-foot tunnel. The general investigation included the effects of a full-chord wing fence located 65 percent of the semispan from the fuselage center line and covered a Mach number range

from 0.50 to 0.95 which corresponds to a Reynolds number range from 2.1×10^6 to 3.0×10^6 .

This paper presents only the load distributions in pitch for the clean wing and the fence-on condition. Some results on the effect of a notch in the leading edge of the wing are also presented. The lift, drag, and pitching-moment data for this wing-fuselage combination are presented in reference 1. The aerodynamic loading characteristics of this configuration, without the fence, at transonic speeds are presented in reference 2. Additional information concerning the effects of a similar fence on the force data of this configuration is presented in reference 3.

In order to expedite the publication of these results, they are presented here with only a brief discussion.

COEFFICIENTS AND SYMBOLS

The symbols used in the present paper are defined as follows:

M	Mach number
R	Reynolds number
P	pressure coefficient, $\frac{P_l - P_o}{q}$ or $\frac{P_u - P_o}{q}$
p	local static pressure, lb/sq ft
P_o	free-stream static pressure, lb/sq ft
q	dynamic pressure, $\frac{1}{2}\rho V^2$, lb/sq ft
ρ	air density, slugs/cu ft
V	free-stream velocity, ft/sec
c	local wing chord, ft
c_{av}	average wing chord, S/b , ft
b	wing span, ft
S	wing area, sq ft

x chordwise distance from leading edge of local chord, ft

y spanwise distance from fuselage center line, ft

$\Delta \frac{x}{c}$ increment of local chord over which the pressure at a particular orifice is assumed to act

c_n section normal-force coefficient, $\sum_{\frac{x}{c}=0}^1 (P_l - P_u) \Delta \left(\frac{x}{c} \right)$

c_m section pitching-moment coefficient about 0.25 local chord,

$$\sum_{\frac{x}{c}=0}^1 (P_u - P_l) \left(\frac{x}{c} - 0.25 \right) \Delta \left(\frac{x}{c} \right)$$

C_{N_e} exposed-wing normal-force coefficient,

$$\int_0^{1.0} \left(c_n \frac{c}{c_{av}} \right) d \left(\frac{y}{b/2} \right)_e$$

C_{B_e} exposed-wing bending-moment coefficient,

$$\int_0^1 \left(c_n \frac{c}{c_{av}} \right) \left(\frac{y}{b/2} \right)_e d \left(\frac{y}{b/2} \right)_e$$

α angle of attack, deg

X/c local longitudinal center of pressure, $\frac{c_m}{c_n} - 0.25$

$\left(\frac{Y}{b/2} \right)_e$ lateral center of pressure measured from fuselage surface,
 $\frac{C_{B_e}}{C_{N_e}}$

Subscripts:

e exposed wing

u upper surface

l lower surface

MODEL AND APPARATUS

A drawing of the wing-fuselage configuration tested is shown in figure 1. A tabulation of the fuselage ordinates is presented in reference 1. The wing had a quarter-chord sweep of 45° , aspect ratio of 4, taper ratio of 0.6, and an NACA 65A006 airfoil section and was of composite construction, consisting of a steel core with a bismuth-tin covering to give the desired contour. One hundred and fifteen static-pressure orifices were located in the upper and lower surfaces of the wing and were distributed along five spanwise stations parallel to the plane of symmetry (20, 60, and 95 percent semispan on the right wing and 40 and 80 percent semispan on the left wing). The wing was mounted to the fuselage in a midwing position with zero dihedral and zero incidence.

The model was tested on the sting-type support system shown in figure 2. With this support system the model can be remotely operated through a 28° angle range.

The details of the fences used in the investigation are shown in figure 1. The brass fences were mounted on the wing at the 65-percent-semispan station such that the mounting clips did not protrude above the wing surface.

The leading-edge notches were installed in the wing at the 65-percent-semispan station after the pressure tubes had been installed. It was not possible, therefore, to make them as deep (chordwise) as desired. The details of the notches tested are shown in figure 1. The location of the notch was determined from a study of unpublished low-speed data on a similar wing.

TESTS AND CORRECTIONS

The tests were conducted in the Langley high-speed 7- by 10-foot tunnel through a Mach number range from approximately 0.50 to 0.95 corresponding to a Reynolds number range from 2.1×10^6 to 3.0×10^6 . The size of the model caused the tunnel to choke at a Mach number of 0.96 at zero angle of attack. The blocking corrections which were applied to the Mach number were determined by the method of reference 4.

The angle of attack, which was varied from 0° to about 25° , has been corrected for the deflection of the sting support system.

The aeroelastic deflection characteristics of this wing (as determined from static loadings) are presented in reference 1. No aeroelastic corrections have been applied to these data. The variation of Reynolds number with Mach number is presented in figure 3.

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PRESENTATION OF RESULTS

All the detailed pressure coefficients are presented in tables I, II, and III and selected results from this investigation are presented in the following figures:

	Figure
Span load distributions	4
Local chordwise center of pressure	5
Effect of Mach number on local chordwise center of pressure at $\alpha = 4^\circ$	6
Local section normal-force curves	7
Wing normal-force curves	8
Root bending moments	9
Lateral center of pressure	10
Some representative chordwise loadings	11

A few of the chordwise load distributions have been plotted and are presented in figure 11. In the process of plotting and analyzing these data, it was found that less than 2 percent of the individual pressure coefficients were in error. Therefore, in order to expedite the publication of the data, it was decided that it would be unnecessary to plot all the chordwise load distributions, and the pressure coefficients (tables I, II, and III) have been presented in the form obtained from the tabulating machine. Tests at Mach numbers of 0.91 and 0.95 were repeated on the clean-wing configuration as an indication of the repeatability of the data.

At Mach numbers below 0.93, the fences were effective in improving the lifting characteristics of the outer portion of the wing in the angle-of-attack range from about 8° to about 17° , however, in general the fence reduced the load over the section inboard of the fence at these angles of attack. Above an angle of attack of about 20° , at Mach numbers of 0.50 and 0.70, the fences were ineffective (figs. 4 and 10).

The results in figure 10 show that the lateral center of pressure moved inward at angles of attack above 8° for the clean-wing configuration because of the partial stalling of the tip sections of the wing. The fence delayed this inward movement to a higher angle of attack but did not exhibit any definite tendency to move the lateral center of pressure farther outboard than the most outward position shown for the clean wing.

The effects of the leading-edge notch were similar to the effects of the fence but of somewhat smaller magnitude and the effectiveness of the notch was lost at lower angles of attack (figs. 4, 5, and 10). However, as mentioned previously, the notch was rather small. Unpublished data on the effect of notches and fences on the lift and pitching-moment

characteristics of similar wings indicate that deeper (chordwise) notches produce results more nearly approaching those for fences.

CONCLUSIONS

The results of the investigation of the aerodynamic loading characteristics, including the effects of wing fences and leading-edge notches, on a 45° sweptback wing of aspect ratio 4, taper ratio 0.6, and a NACA 65A006 airfoil section indicate the following conclusions:

1. The wing fences, at Mach numbers below 0.93, were effective in improving the lift-carrying ability of the outer portion of the wing in the angle-of-attack range from about 8° to 17° . Above 20° , at Mach numbers of 0.50 and 0.70 the fences were ineffective.
2. The fences delayed the inward movement of the lateral center of pressure to a higher angle of attack but did not show any tendency to move the lateral center of pressure farther outboard than the most outward position shown for the clean wing.
3. A limited investigation (at Mach numbers of 0.70 and 0.91) of the effects of a small leading-edge notch indicated that the effects were similar to, but smaller than, the effects shown by the fence.

Langley Aeronautical Laboratory,
National Advisory Committee for Aeronautics,
Langley Field, Va., August 17, 1953.

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
CLEAN WING
(a) $M = 0.50$.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.2^\circ$	$\alpha=8.3^\circ$	$\alpha=12.5^\circ$	$\alpha=16.5^\circ$	$\alpha=20.6^\circ$	$\alpha=24.6^\circ$
$\frac{y}{b/2}=20$	Upper	.000	.435	.006	-1.057	-2.443	-2.984	-1.132
	.025	-	.107	.628	-1.921	-2.634	-2.909	-1.124
	.075	-	.147	.428	-1.604	-3.237	-3.125	-1.122
	.150	-	.136	.340	-1.448	-3.666	-2.555	-1.126
	.250	-	.168	.325	-1.489	-3.632	-2.991	-1.130
	.350	-	.176	.306	-1.453	-3.547	-2.738	-1.118
	.450	-	.166	.265	-1.381	-3.439	-2.590	-1.028
	.550	-	.187	.280	-1.376	-3.425	-2.577	-1.064
	.650	-	.174	.247	-1.329	-3.366	-2.514	-1.003
	.750	-	.127	.184	-1.222	-2.558	-2.357	-1.896
	.850	-	.097	.127	-1.167	-1.186	-2.314	-1.806
	.950	-	.052	.056	-1.074	-1.102	-2.216	-1.695
	Lower	.950	.037	.003	.002	.009	.004	-1.142
	.850	-	.082	.028	.003	.037	.062	-1.013
	.750	-	.129	.051	.003	.053	.102	-1.077
	.650	-	.166	.069	.003	.071	.137	-1.139
	.550	-	.195	.084	.001	.094	.171	-1.199
	.450	-	.176	.051	.047	.152	.245	-1.287
	.350	-	.156	.011	.099	.220	.320	-1.366
	.250	-	.142	.024	.154	.285	.402	-1.452
	.150	-	.112	.092	.244	.387	.507	-1.550
	.075	-	.110	.162	.340	.487	.596	-1.636
	.025	-	.056	.317	.487	.542	.550	-1.585
$\frac{y}{b/2}=40$	Upper	.000	.180	.284	-1.161	-1.889	-1.439	-1.085
	.025	-	.156	.834	-1.242	-1.578	-1.320	-1.072
	.075	-	.162	.537	-1.084	-1.636	-1.330	-1.072
	.150	-	.169	.417	-1.926	-1.646	-1.301	-1.076
	.250	-	.176	.359	-1.763	-1.502	-1.285	-1.042
	.350	-	.192	.330	-1.612	-1.326	-1.270	-1.017
	.450	-	.199	.304	-1.490	-1.117	-1.217	-1.003
	.550	-	.181	.202	-1.392	-1.875	-1.124	-1.006
	.650	-	.144	.196	-1.300	-1.603	-1.006	-1.989
	.750	-	.101	.140	-1.215	-1.331	-1.870	-1.899
	.850	-	.051	.072	-1.135	-1.136	-1.712	-1.815
	.950	-	.013	.023	-1.071	-1.042	-1.602	-1.775
	Lower	.950	.031	.013	.007	.013	-1.142	-1.314
	.850	-	.054	.021	.000	.037	-1.047	-1.159
	.750	-	.083	.071	.007	.051	-1.027	-1.040
	.650	-	.144	.071	.006	.052	-1.062	-0.931
	.550	-	.182	.077	.003	.081	-1.119	-1.177
	.450	-	.181	.063	.039	.131	-1.188	-1.200
	.350	-	.181	.039	.077	.186	-1.256	-1.283
	.250	-	.165	.003	.141	.262	-1.341	-1.371
	.150	-	.148	.061	.224	.360	-1.434	-1.465
	.075	-	.141	.146	.322	.453	-1.522	-1.533
	.025	-	.107	.289	.442	.496	-1.504	-1.478
$\frac{y}{b/2}=60$	Upper	.000	.441	.084	.635	-1.072	.949	.785
	.025	-	.141	.741	.923	-1.943	.854	.773
	.075	-	.152	.592	.898	-1.928	.844	.776
	.150	-	.154	.442	.863	-1.898	.825	.748
	.250	-	.162	.355	.831	-1.864	.793	.730
	.350	-	.160	.301	.798	-1.837	.768	.718
	.450	-	.159	.255	.726	-1.837	.752	.716
	.550	-	.134	.202	.614	-1.796	.734	.718
	.650	-	.102	.149	.468	-1.754	.723	.714
	.750	-	.070	.101	.332	-1.690	.698	.685
	.850	-	.024	.032	.199	-1.641	.663	.643
	.950	-	.014	.007	.111	-1.598	.628	.615
	Lower	.950	.011	.031	.007	.206	.271	.290
	.850	-	.019	.007	.002	.092	.167	.180
	.750	-	.072	.020	.008	.039	.077	.092
	.650	-	.113	.039	.003	.044	.013	.021
	.550	-	.156	.046	.026	.044	.052	.051
	.450	-	.152	.044	.092	.086	.119	.128
	.350	-	.150	.001	.144	.162	.205	.225
	.250	-	.143	.031	.216	.229	.304	.307
	.150	-	.126	.099	.225	.333	.387	.407
	.075	-	.112	.191	.425	.370	.429	.433
	.025	-	.099	.295	.429	.498	.532	.496

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE

CLEAN WING - Continued

(a) $M = 0.50$. Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=42^\circ$	$\alpha=83^\circ$	$\alpha=125^\circ$	$\alpha=165^\circ$	$\alpha=206^\circ$	$\alpha=246^\circ$									
$\frac{y}{b/2}=80$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	- - - - - - - - - - - -	.434 .159 .169 .162 .171 .174 .170 .156 .116 .072 .034 .010	- - - - - - - - - - - -	.455 .908 .570 .420 .349 .300 .264 .215 .147 .091 .037 .004	- - - - - - - - - - - -	1.097 1.169 1.216 .994 .610 .468 .382 .310 .245 .186 .129 .082	- - - - - - - - - - - -	.736 .596 .582 .557 .521 .490 .467 .453 .438 .422 .388 .336	- - - - - - - - - - - -	.589 .537 .527 .508 .492 .477 .467 .460 .445 .427 .402 .354	- - - - - - - - - - - -	.603 .592 .598 .590 .581 .573 .563 .550 .525 .503 .470 .416	- - - - - - - - - - - -	.645 .644 .642 .634 .626 .617 .606 .594 .579 .561 .532 .469	
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	- - - - - - - - - - -	.037 .033 .079 .114 .147 .164 .174 .154 .149 .129 .101	- - - - - - - - - - -	.035 .018 .052 .061 .071 .079 .041 .011 .072 .165 .311	- - - - - - - - - - -	.086 .034 .047 .033 .024 .009 .052 .119 .209 .311 .433	- - - - - - - - - - -	.276 .160 .127 .078 .042 .001 .096 .173 .269 .382 .472	- - - - - - - - - - -	.296 .170 .124 .066 .018 .037 .131 .229 .327 .431 .483	- - - - - - - - - - -	.329 .174 .125 .058 .003 .062 .141 .262 .370 .453 .463	- - - - - - - - - - -	.341 .171 .105 .023 .047 .116 .136 .326 .424 .487 .445	
	$\frac{y}{b/2}=95$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	- - - - - - - - - - -	.361 .128 .170 .159 .140 .141 .127 .103 .055 .032 .003 .041	- - - - - - - - - - -	.499 .696 .509 .354 .245 .216 .180 .148 .104 .067 .037 .004	- - - - - - - - - - -	.374 .438 .425 .378 .322 .297 .254 .225 .174 .181 .171 .148	- - - - - - - - - - -	.434 .326 .329 .305 .277 .280 .259 .260 .231 .255 .250 .221	- - - - - - - - - - -	.381 .344 .344 .328 .312 .325 .318 .317 .287 .313 .301 .267	- - - - - - - - - - -	.462 .455 .455 .446 .438 .462 .501 .446 .404 .424 .398 .347	- - - - - - - - - - -	.513 .506 .502 .491 .485 .518 .501 .495 .443 .455 .424 .374
		Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	- - - - - - - - - - -	.020 .020 .027 .075 .108 .118 .133 .148 .135 .135 .097	- - - - - - - - - - -	.011 .001 .042 .069 .091 .094 .092 .077 .003 .094 .246	- - - - - - - - - - -	.119 .064 .084 .092 .091 .081 .064 .037 .062 .177 .329	- - - - - - - - - - -	.176 .109 .127 .122 .124 .106 .079 .035 .015 .136 .250 .376	- - - - - - - - - - -	.202 .122 .136 .124 .094 .061 .013 .049 .190 .300 .395	- - - - - - - - - - -	.237 .149 .157 .140 .106 .065 .007 .067 .205 .324 .377	- - - - - - - - - - -	.240 .143 .151 .120 .090 .042 .023 .106 .244 .346 .358

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
CLEAN WING - Continued

(b) $M = 0.70$.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=42^\circ$	$\alpha=84^\circ$	$\alpha=126^\circ$	$\alpha=167^\circ$	$\alpha=208^\circ$	$\alpha=248^\circ$
$\frac{y}{b/2}=20$	Upper	.000	.453	.133	.523	1.265	1.645	.896
	.025	-.087	-.597	1.647	2.179	1.608	1.899	.833
	.075	-.101	-.406	1.682	2.320	1.540	.901	.839
	.150	-.119	-.337	.350	1.917	1.442	.901	.851
	.250	-.158	-.330	.489	.569	1.246	.904	.857
	.350	-.166	.313	.462	.549	.939	.903	.867
	.450	-.160	.274	.394	.485	.812	.830	.814
	.550	-.188	.292	.396	.508	.693	.889	.879
	.650	-.178	.260	.339	.431	.579	.872	.877
	.750	-.138	.189	.231	.286	.479	.834	.867
	.850	-.090	.128	.157	.218	.377	.796	.859
	.950	-.031	.049	.059	.125	.377	.753	.843
$\frac{y}{b/2}=40$	Lower	.950	.032	.010	.012	.007	.043	.147
	.850	.083	.035	.009	.009	.039	.035	.008
	.750	.134	.059	.009	.066	.091	.111	.171
	.650	.170	.078	.009	.085	.133	.171	.247
	.550	.203	.089	.018	.107	.174	.227	.315
	.450	.177	.052	.066	.174	.253	.315	.405
	.350	.150	.010	.123	.240	.326	.398	.491
	.250	.131	.030	.177	.307	.407	.483	.584
	.150	.095	.098	.266	.405	.510	.587	.678
	.075	.090	.163	.359	.505	.602	.671	.744
	.025	.037	.314	.503	.591	.634	.664	.674
$\frac{y}{b/2}=60$	Upper	.000	.476	.086	.825	1.294	1.091	.897
	.025	-.153	-.854	1.413	1.180	1.044	.891	.927
	.075	-.159	.353	1.218	1.188	1.028	.891	.925
	.150	-.162	.434	.924	1.246	1.003	.888	.925
	.250	-.173	.372	.754	1.272	.972	.880	.928
	.350	-.191	.343	.609	1.234	.952	.870	.928
	.450	-.197	.316	.487	1.147	.937	.857	.915
	.550	-.180	.266	.383	1.031	.906	.849	.898
	.650	.138	.201	.290	.860	.863	.835	.877
	.750	.088	.128	.204	.679	.816	.809	.854
	.850	.038	.061	.125	.471	.755	.766	.833
	.950	.009	.009	.063	.293	.705	.727	
$\frac{y}{b/2}=80$	Lower	.950	.007	.001	.005	.032	.248	.291
	.850	.034	.009	.014	.008	.005	.293	.127
	.750	.061	.021	.021	.040	.111	.149	.026
	.650	.137	.066	.001	.050	.005	.039	.039
	.550	.171	.072	.015	.080	.099	.119	.190
	.450	.175	.054	.049	.130	.175	.205	.280
	.350	.177	.028	.093	.192	.248	.293	.366
	.250	.159	.018	.156	.266	.333	.380	.455
	.150	.137	.081	.239	.360	.431	.476	.539
	.075	.121	.163	.341	.457	.517	.546	.585
	.025	.077	.300	.461	.525	.538	.527	.505
$\frac{y}{b/2}=100$	Upper	.000	.448	.001	.383	.813	.852	.741
	.025	-.148	.813	.764	.786	.736	.724	.784
	.075	-.155	.655	.731	.777	.752	.739	.814
	.150	-.158	.495	.677	.751	.715	.714	.810
	.250	-.164	.388	.605	.712	.693	.698	.772
	.350	-.166	.328	.560	.696	.674	.698	.758
	.450	-.160	.275	.540	.684	.653	.681	.751
	.550	-.138	.216	.510	.674	.643	.680	.733
	.650	-.099	.156	.468	.671	.630	.678	.719
	.750	.063	.099	.405	.649	.601	.662	.697
	.850	.013	.034	.334	.612	.565	.640	.678
	.950	.027	.011	.275	.576	.532	.606	.657
$\frac{y}{b/2}=120$	Lower	.950	.031	.024	.077	.239	.253	.279
	.850	.011	.003	.031	.136	.164	.182	.159
	.750	.053	.025	.016	.065	.094	.093	.059
	.650	.105	.044	.007	.014	.031	.019	.028
	.550	.116	.052	.010	.034	.031	.057	.102
	.450	.152	.047	.033	.086	.102	.130	.196
	.350	.147	.007	.094	.160	.193	.229	.294
	.250	.139	.030	.148	.236	.275	.315	.368
	.150	.122	.098	.230	.329	.378	.412	.464
	.075	.093	.176	.366	.409	.415	.447	.461
	.025	.074	.296	.432	.495	.497	.461	.439

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE

CLEAN WING - Continued

(b) $M = 0.70$. Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=42^\circ$	$\alpha=84^\circ$	$\alpha=126^\circ$	$\alpha=167^\circ$	$\alpha=208^\circ$	$\alpha=248^\circ$		
$\frac{y}{b/2}=80$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	-.454 -.551 -.163 -.156 -.167 -.170 -.167 -.148 -.103 -.054 -.013 .041	-.223 -.919 -.648 -.454 -.358 -.298 -.251 -.198 -.132 -.072 -.020 .032	-.825 -.993 -.986 -.955 -.813 -.648 -.515 -.402 -.307 -.230 -.153 .093	-.607 -.492 -.482 -.466 -.447 -.424 -.411 -.404 -.395 -.379 -.353 .298	-.569 -.485 -.479 -.467 -.453 -.440 -.434 -.429 -.419 -.410 -.396 .343	-.604 -.593 -.600 -.596 -.577 -.566 -.558 -.545 -.527 -.504 -.474 .407	-.674 -.669 -.680 -.671 -.654 -.642 -.633 -.615 -.593 -.566 -.534 .461	
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	-.008 -.005 -.060 -.089 -.123 -.153 -.149 -.141 -.126 -.114 .081	-.020 -.002 -.041 -.052 -.066 -.070 -.028 -.020 -.090 -.179 .320	-.072 -.023 -.040 -.028 -.017 -.001 -.066 -.140 -.223 -.328 .453	-.277 -.157 -.132 -.084 -.044 -.002 -.088 -.181 -.281 -.387 .485	-.314 -.178 -.142 -.079 -.029 -.030 -.125 -.225 -.328 -.430 .492	-.347 -.191 -.140 -.067 -.005 -.064 -.168 -.269 -.370 -.455 .475	-.364 -.182 -.121 -.031 -.045 -.118 -.226 -.327 -.420 -.485 .452	
	$\frac{y}{b/2}=95$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	-.383 -.120 -.157 -.145 -.123 -.126 -.104 -.086 -.008 -.008 .033 .073	-.288 -.645 -.514 -.366 -.244 -.208 -.166 -.131 -.078 -.058 -.028 .004	-.403 -.474 -.458 -.412 -.355 -.341 -.306 -.283 -.221 -.252 -.234 .198	-.413 -.322 -.320 -.302 -.270 -.281 -.273 -.273 -.262 -.270 -.263 .230	-.423 -.381 -.384 -.374 -.359 -.380 -.373 -.368 -.339 -.349 -.325 .279	-.455 -.445 -.441 -.429 -.418 -.449 -.445 -.443 -.406 -.420 -.391 .334	-.509 -.504 -.499 -.485 -.473 -.505 -.497 -.494 -.452 -.460 -.433 .377
		Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	-.050 -.058 -.001 -.040 -.080 -.094 -.116 -.127 -.121 -.117 .055	-.011 -.032 -.021 -.053 -.074 -.080 -.084 -.073 -.007 -.103 .262	-.106 -.029 -.060 -.073 -.080 -.073 -.058 -.027 -.087 -.211 .357	-.188 -.105 -.141 -.136 -.119 -.088 -.044 -.009 -.144 -.266 .389	-.215 -.129 -.162 -.154 -.134 -.095 -.040 -.025 -.176 -.299 .395	-.252 -.151 -.177 -.160 -.131 -.084 -.020 -.064 -.219 -.334 .390	-.274 -.163 -.184 -.157 -.118 -.062 -.008 -.101 -.250 -.357 .364

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
CLEAN WING - Continued

(c) $M = 0.85$.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.3^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$	$\alpha=16.8^\circ$
$\frac{y}{b/2}=20$	Upper	.000	.473	.269	.119	.577
		.025	.061	.545	1.266	1.506
		.075	.096	.391	1.200	1.509
		.150	.110	.353	.844	1.509
		.250	.162	.360	.507	.659
		.350	.177	.367	.533	.663
		.450	.173	.339	.542	.523
		.550	.218	.375	.583	.415
		.650	.215	.351	.601	.639
		.850	.160	.245	.346	.517
		.950	.115	.165	.177	.436
		.950	.046	.068	.072	.267
$\frac{y}{b/2}=40$	Lower	.950	.040	.023	.001	.058
		.850	.108	.053	.004	.000
		.750	.170	.080	.005	.043
		.650	.210	.097	.010	.067
		.550	.238	.103	.018	.095
		.450	.200	.054	.074	.166
		.350	.162	.008	.133	.237
		.250	.136	.034	.189	.306
		.150	.090	.107	.281	.407
		.075	.082	.173	.371	.509
		.025	.023	.319	.519	.621
		.025	.023	.319	.519	.685
$\frac{y}{b/2}=60$	Upper	.000	.489	.090	.396	.915
		.025	.138	1.315	1.513	1.082
		.075	.160	.561	1.403	1.042
		.150	.174	.480	.890	1.023
		.250	.194	.454	.788	.986
		.350	.222	.431	.724	.954
		.450	.231	.400	.625	.943
		.550	.209	.311	.467	.898
		.650	.158	.227	.326	.847
		.850	.094	.139	.220	.787
		.950	.039	.061	.134	.709
		.950	.008	.004	.075	.625
$\frac{y}{b/2}=80$	Lower	.950	.000	.001	.013	.182
		.850	.034	.012	.001	.091
		.750	.070	.026	.014	.018
		.650	.155	.079	.011	.006
		.550	.201	.090	.001	.037
		.450	.210	.072	.036	.099
		.350	.209	.046	.077	.161
		.250	.184	.006	.142	.241
		.150	.155	.073	.227	.334
		.075	.133	.153	.325	.435
		.025	.089	.289	.448	.521
		.025	.089	.289	.448	.554
$\frac{y}{b/2}=100$	Upper	.000	.450	.099	.258	.619
		.025	.150	1.101	.943	.804
		.075	.171	.792	.911	.801
		.150	.178	.592	.874	.779
		.250	.186	.441	.838	.752
		.350	.190	.378	.821	.734
		.450	.182	.313	.796	.709
		.550	.155	.242	.745	.679
		.650	.109	.171	.682	.650
		.850	.068	.106	.604	.616
		.950	.014	.033	.500	.565
		.950	.031	.014	.392	.522
$\frac{y}{b/2}=120$	Lower	.950	.031	.022	.046	.250
		.850	.011	.003	.006	.176
		.750	.068	.033	.003	.115
		.650	.120	.056	.007	.059
		.550	.134	.066	.018	.006
		.450	.182	.062	.042	.048
		.350	.175	.020	.100	.129
		.250	.164	.022	.127	.206
		.150	.149	.085	.158	.305
		.075	.120	.190	.241	.411
		.025	.099	.284	.317	.479
		.025	.099	.284	.317	.485

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE

CLEAN WING - Continued

(c) $M = 0.85$. Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.3^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$	$\alpha=16.8^\circ$
$\frac{y}{b/2}=80$	Upper	.000	.469	-.044	-.492	-.596
	.025	-.142	1.505	-.737	-.534	-.579
	.075	-.162	-.786	-.712	-.524	-.576
	.150	-.162	-.502	-.682	-.502	-.568
	.250	-.180	-.390	-.652	-.480	-.551
	.350	-.181	-.330	-.621	-.464	-.535
	.450	-.179	-.267	-.594	-.454	-.525
	.550	-.152	-.200	-.561	-.453	-.517
	.650	-.101	-.128	-.520	-.447	-.506
	.750	-.045	-.067	-.471	-.430	-.495
	.850	-.006	-.013	-.402	-.408	-.479
	.950	.064	.041	-.327	-.342	-.409
	Lower	.950	.006	-.014	-.212	-.344
$\frac{y}{b/2}=95$	.850	.011	-.002	-.101	-.220	-.257
	.750	.051	-.047	-.087	-.193	-.214
	.650	.096	-.064	-.061	-.140	-.137
	.550	.141	-.082	-.043	-.092	-.070
	.450	.168	-.081	-.019	-.039	-.005
	.350	.168	-.035	.050	.056	.102
	.250	.163	.026	.130	.155	.202
	.150	.146	.088	.211	.255	.310
	.075	.133	.175	.313	.359	.406
	.025	.100	.313	.439	.462	.475
	Upper	.000	.413	-.199	-.250	-.366
	.025	.115	-.763	-.353	-.318	-.456
	.075	.173	-.605	-.344	-.318	-.447
	.150	.179	-.426	-.312	-.305	-.433
	.250	.136	-.272	-.260	-.280	-.414
	.350	.136	-.230	-.256	-.310	-.448
	.450	.109	-.176	-.234	-.308	-.440
	.550	.086	-.138	-.230	-.316	-.443
	.650	.031	-.087	-.197	-.278	-.380
	.750	.005	-.062	-.130	-.313	-.410
	.850	.050	-.033	-.224	-.305	-.382
	.950	.094	.005	-.187	-.261	-.320
	Lower	.950	.069	.018	-.172	-.236
	.850	.085	.050	-.084	-.139	-.183
	.750	.015	-.015	-.128	-.196	-.243
	.650	.031	-.051	-.131	-.195	-.240
	.550	.080	-.082	-.129	-.184	-.221
	.450	.097	-.096	-.109	-.145	-.171
	.350	.127	-.110	-.082	-.099	-.107
	.250	.146	-.110	-.047	-.033	-.014
	.150	.157	-.015	.082	.123	.157
	.075	.144	.108	.213	.258	.294
	.025	.070	.267	.362	.386	.387

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
CLEAN WING - Continued

(d) $M = 0.91$.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$			
$\frac{y}{b/2}=20$	Upper	.0000 .0250 .0750 .1500 .2500 .3500 .4500 .5500 .6500 .7500 .8500 .9500	.485 .052 .076 .102 .162 .187 .193 .249 .269 .193 .157 .061	.330 .550 .387 .317 .354 .363 .362 .402 .436 .405 .388 .159	.019 1.152 1.004 .735 .482 .493 .500 .564 .598 .569 .591 .370	.378 1.342 1.342 1.321 .621 .602 .600 .682 .664 .569 .489 .342		
	Lower	.9500 .8500 .7500 .6500 .5500 .4500 .3500 .2500 .1500 .0750 .0250	.061 .146 .245 .267 .322 .210 .069 .138 .084 .077 .018	.069 .095 .115 .123 .127 .068 .014 .033 .110 .175 .322	.114 .075 .054 .038 .022 .046 1.109 .173 .265 .354 .510	.087 .011 .030 .063 .091 .166 .241 .310 .410 .514 .637		
	$\frac{y}{b/2}=40$	Upper	.0000 .0250 .0750 .1500 .2500 .3500 .4500 .5500 .6500 .7500 .8500 .9500	.485 .153 .174 .195 .227 .271 .304 .268 .181 .114 .053 .004	.159 1.153 .587 .486 .466 .483 .517 .443 .498 .187 .056 .005	.208 1.316 1.289 1.219 .704 .657 .703 .698 .477 .203 .092	.687 1.317 1.249 1.185 1.104 1.046 .988 .930 .877 .808 .730 .637	
		Lower	.9500 .8500 .7500 .6500 .5500 .4500 .3500 .2500 .1500 .0750 .0250	.014 .046 .085 .185 .259 .268 .265 .215 .172 .143 .091	.009 .028 .045 .109 .127 .103 .069 .013 .059 .140 .273	.064 .063 .050 .083 .061 .012 .040 .111 .197 .296 .424	.177 .092 .285 .018 .022 .087 .153 .232 .325 .424 .520	
		$\frac{y}{b/2}=60$	Upper	.0000 .0250 .0750 .1500 .2500 .3500 .4500 .5500 .6500 .7500 .8500 .9500	.429 .190 .213 .229 .237 .230 .216 .176 .129 .087 .028 .022	.166 1.212 1.076 .563 .553 .569 .581 .257 .122 .062 .008 .031	.127 1.314 1.200 1.085 1.001 .902 .776 .649 .548 .472 .393 .339	.491 .826 .818 .805 .787 .771 .742 .726 .704 .680 .641 .614
			Lower	.9500 .8500 .7500 .6500 .5500 .4500 .3500 .2500 .1500 .0750 .0250	.027 .025 .084 .139 .170 .216 .201 .197 .186 .145 .122	.020 .011 .045 .072 .087 .088 .045 .003 .062 .182 .254	.140 .095 .075 .066 .051 .026 .035 .091 .176 .258 .379	.316 .219 .148 .089 .035 .022 .107 .185 .283 .376 .461

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE

CLEAN WING - Continued

(d) $M = 0.91$. Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$
$\frac{y}{b/2}=80$	Upper				
	.000	.463	.028	.378	.660
	.025	.168	1.297	1.006	.664
	.075	.192	1.297	1.001	.641
	.150	.187	1.031	.935	.615
	.250	.208	.618	.851	.605
	.350	.215	.354	.755	.589
	.450	.211	.174	.695	.571
	.550	.182	.143	.630	.558
	.650	.112	.090	.562	.544
	.750	.049	.033	.503	.527
	.850	.001	.014	.426	.505
	.950	.064	.067	.324	.427
$\frac{y}{b/2}=80$	Lower				
	.950	.002	.002	.249	.462
	.850	.005	.001	.151	.317
	.750	.059	.056	.144	.272
	.650	.108	.088	.118	.194
	.550	.170	.104	.097	.130
	.450	.201	.103	.067	.067
	.350	.196	.052	.000	.032
	.250	.186	.010	.079	.133
	.150	.171	.068	.157	.230
	.075	.156	.154	.258	.332
	.025	.120	.289	.383	.439
$\frac{y}{b/2}=95$	Upper				
	.000	.410	.204	.376	.529
	.025	.146	1.006	.526	.483
	.075	.220	1.006	.531	.478
	.150	.271	.599	.455	.460
	.250	.168	.411	.377	.425
	.350	.156	.191	.369	.454
	.450	.132	.118	.332	.439
	.550	.090	.109	.326	.442
	.650	.101	.087	.243	.377
	.750	.003	.059	.295	.421
	.850	.044	.030	.276	.398
	.950	.097	.011	.229	.332
$\frac{y}{b/2}=95$	Lower				
	.950	.072	.043	.196	.325
	.850	.096	.073	.097	.230
	.750	.011	.009	.151	.326
	.650	.038	.049	.165	.327
	.550	.087	.085	.177	.305
	.450	.109	.103	.173	.253
	.350	.145	.144	.161	.196
	.250	.174	.190	.115	.100
	.150	.217	.029	.050	.091
	.075	.160	.112	.194	.238
	.025	.073	.271	.339	.363

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE

CLEAN WING - Continued

(e) $M = 0.93$ and 0.95 .

M=93					M=95				
	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=44^\circ$	$\alpha=86^\circ$		$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=44^\circ$	$\alpha=6.5^\circ$
$\frac{y}{b/2}=20$	Upper	.000	.496	.342	.061	.000	.505	.368	.235
		.025	.048	.551	1.092	.025	.035	.530	.803
		.075	.076	.381	.923	.075	.059	.362	.556
		.150	.104	.295	.676	.150	.090	.275	.426
		.250	.165	.334	.475	.250	.155	.314	.411
		.350	.197	.346	.473	.350	.192	.327	.405
		.450	.208	.354	.480	.450	.204	.347	.412
		.550	.253	.397	.540	.550	.243	.387	.465
		.650	.289	.432	.569	.650	.277	.425	.499
		.750	.301	.422	.555	.750	.290	.415	.483
	.850	.254	.419	.579	.850	.284	.424	.499	
	.950	.124	.255	.420	.950	.219	.312	.376	
Lower		.950	.116	.141	.141	.950	.211	.176	.167
		.850	.244	.091	.091	.850	.286	.188	.137
		.750	.312	.068	.068	.750	.299	.180	.131
		.650	.295	.048	.048	.650	.277	.167	.112
		.550	.323	.029	.029	.550	.295	.172	.098
		.450	.209	.046	.046	.450	.187	.076	.016
		.350	.171	.111	.111	.350	.151	.022	.048
		.250	.139	.175	.175	.250	.122	.031	.108
		.150	.084	.273	.273	.150	.063	.113	.194
		.075	.078	.364	.364	.075	.055	.174	.277
	.025	.015	.323	.517	.025	.007	.320	.427	

$\frac{y}{b/2}=40$	Upper	.000	.483	.193	.148	.000	.170	.223	.055
		.025	.157	1.080	1.262	.025	.145	1.035	1.266
		.075	.178	.555	1.202	.075	.168	.542	1.096
		.150	.206	.474	1.147	.150	.189	.454	.704
		.250	.237	.447	.688	.250	.225	.432	.506
		.350	.291	.468	.615	.350	.283	.461	.532
		.450	.334	.508	.643	.450	.326	.498	.561
		.550	.371	.535	.674	.550	.369	.527	.597
		.650	.290	.538	.681	.650	.375	.536	.604
		.750	.130	.371	.616	.750	.271	.497	.569
Lower		.850	.050	.361	.220	.850	.105	.268	.346
		.950	.003	.039	.039	.950	.024	.151	.217
		.950	.016	.146	.146	.950	.040	.128	.170
		.850	.049	.129	.129	.850	.100	.145	.162
		.750	.101	.099	.099	.750	.242	.155	.175
		.650	.281	.150	.122	.650	.366	.231	.175
		.550	.351	.094	.094	.550	.360	.219	.162
		.450	.335	.036	.036	.450	.320	.163	.099
		.350	.280	.028	.028	.350	.263	.114	.049
		.250	.266	.094	.094	.250	.211	.046	.022
$\frac{y}{b/2}=60$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
Lower		.850	.037	.363	.363	.850	.021	.135	.317
		.950	.010	.035	.314	.950	.031	.061	.196
		.950	.036	.189	.189	.950	.036	.069	.151
		.850	.035	.145	.145	.850	.015	.099	.157
		.750	.097	.125	.125	.750	.083	.142	.159
		.650	.147	.113	.113	.650	.196	.181	.179
		.550	.190	.099	.099	.550	.297	.202	.167
		.450	.257	.072	.072	.450	.351	.189	.149
		.350	.270	.002	.002	.350	.311	.133	.076
		.250	.261	.063	.063	.250	.270	.079	.013
$\frac{y}{b/2}=80$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
$\frac{y}{b/2}=100$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
$\frac{y}{b/2}=120$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
$\frac{y}{b/2}=140$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
$\frac{y}{b/2}=160$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
$\frac{y}{b/2}=180$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
$\frac{y}{b/2}=200$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
$\frac{y}{b/2}=220$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
$\frac{y}{b/2}=240$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.541	1.011	.150	.260	.518	1.029
		.250	.303	.537	.918	.250	.308	.523	.758
		.350	.313	.559	.858	.350	.348	.559	.624
		.450	.264	.595	.765	.450	.375	.585	.650
		.550	.170	.572	.642	.550	.300	.617	.664
		.650	.133	.518	.518	.650	.182	.568	.661
		.750	.094	.430	.430	.750	.079	.280	.442
$\frac{y}{b/2}=260$	Upper	.000	.412	.201	.066	.000	.422	.219	.095
		.025	.210	1.126	1.242	.025	.199	1.074	1.248
		.075	.238	1.005	1.179	.075	.233	.949	1.139
		.150	.268	.54					

TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
CLEAN WING - Continued

(e) $M = 0.93$ and 0.95 . Concluded.

		$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=8.6^\circ$			$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=6.5^\circ$
$\frac{y}{b/2}=80$	Upper	.000	.443	.081	.276	$\frac{y}{b/2}=80$	Upper	.000	.416	.135	.016
		.025	.204	1.258	1.277			.025	.244	1.091	1.257
		.075	.224	1.260	1.270			.075	.278	.984	1.142
		.150	.211	.956	1.098			.150	.284	.883	1.065
		.250	.222	.630	.997			.250	.299	.556	1.014
		.350	.235	.618	.883			.350	.290	.619	.981
		.450	.232	.449	.776			.450	.264	.669	.838
		.550	.216	.135	.694			.550	.223	.632	.745
		.650	.124	.039	.616			.650	.127	.321	.703
		.750	.050	.007	.569			.750	.037	.115	.408
		.850	.002	.042	.497			.850	.021	.011	.216
		.950	.067	.086	.367			.950	.087	.056	.080
	Lower	.950	.003	.008	.286		Lower	.950	.025	.056	.219
		.850	.000	.001	.197			.850	.023	.104	.239
		.750	.064	.080	.200			.750	.045	.204	.263
		.650	.131	.123	.166			.650	.127	.204	.229
		.550	.210	.129	.137			.550	.208	.197	.205
		.450	.231	.125	.111			.450	.258	.196	.188
		.350	.216	.077	.043			.350	.266	.145	.120
		.250	.207	.016	.038			.250	.272	.088	.049
		.150	.196	.042	.117			.150	.261	.027	.026
		.075	.188	.124	.215			.075	.236	.054	.117
		.025	.155	.257	.347			.025	.195	.190	.259
$\frac{y}{b/2}=95$	Upper	.000	.409	.155	.489	$\frac{y}{b/2}=95$	Upper	.000	.393	.095	.239
		.025	.164	.724	.767			.025	.209	.759	1.168
		.075	.241	.724	.757			.075	.289	.752	1.039
		.150	.309	.720	.740			.150	.331	.739	.956
		.250	.223	.505	.679			.250	.278	.739	.874
		.350	.162	.246	.665			.350	.175	.522	.914
		.450	.149	.070	.550			.450	.122	.312	.831
		.550	.099	.062	.524			.550	.075	.136	.751
		.650	.129	.070	.332			.650	.083	.055	.376
		.750	.000	.037	.409			.750	.022	.017	.487
		.850	.042	.011	.361			.850	.064	.007	.286
		.950	.095	.030	.295			.950	.115	.046	.121
	Lower	.950	.071	.053	.191		Lower	.950	.092	.056	.083
		.850	.094	.079	.090			.850	.113	.083	.073
		.750	.007	.003	.161			.750	.028	.015	.244
		.650	.051	.037	.219			.650	.024	.111	.360
		.550	.100	.072	.295			.550	.074	.263	.401
		.450	.116	.122	.301			.450	.085	.348	.369
		.350	.164	.254	.274			.350	.195	.349	.330
		.250	.236	.045	.016			.250	.288	.289	.246
		.150	.243	.093	.162			.150	.244	.079	.029
		.075	.173	.250	.310			.075	.187	.051	.111
		.025	.099					.025	.121	.198	.265

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE

CLEAN WING - Continued

(f) $M = 0.91$ (repeat tests).

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$	
$\frac{y}{b/2}=20$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	-.488 -.077 -.101 -.119 -.179 -.216 -.243 -.264 -.298 -.258 -.174 -.078	-.320 -.691 -.402 -.352 -.360 -.400 -.421 -.447 -.481 -.475 -.447 -.245	-.038 -1.238 -1.005 -.719 -.518 -.554 -.572 -.606 -.622 -.621 -.608 -.452	-.439 -1.430 -1.344 -1.283 -.713 -.626 -.669 -.696 -.655 -.550 -.498 -.380
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	-.071 -.145 -.239 -.282 -.211 -.171 -.140 -.086 -.076 -.006	-.112 -.118 -.140 -.147 -.150 -.081 -.028 -.019 -.100 -.170 -.319	-.135 -.079 -.063 -.046 -.033 -.041 -.106 -.171 -.264 -.362 -.513	-.087 -.001 -.034 -.061 -.095 -.174 -.246 -.317 -.420 -.524 -.640

$\frac{y}{b/2}=40$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	-.495 -.179 -.194 -.213 -.246 -.290 -.318 -.285 -.191 -.122 -.058 -.004	-.186 -1.184 -.637 -.513 -.505 -.520 -.547 -.584 -.560 -.274 -.101 -.035	-.180 -1.411 -1.322 -1.244 -.753 -.681 -.703 -.730 -.728 -.552 -.235 -.116	-.711 -1.206 -1.163 -1.117 -1.045 -.992 -.940 -.879 -.832 -.779 -.729 -.657
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	-.019 -.051 -.095 -.190 -.226 -.276 -.260 -.221 -.177 -.145 -.086	-.042 -.056 -.074 -.138 -.133 -.129 -.092 -.034 -.040 -.126 -.264	-.094 -.088 -.076 -.100 -.059 -.028 -.028 -.097 -.189 -.290 -.416	-.202 -.102 -.030 -.016 -.042 -.090 -.158 -.237 -.330 -.430 -.520

$\frac{y}{b/2}=60$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	-.443 -.224 -.243 -.255 -.251 -.241 -.229 -.192 -.145 -.094 -.036 -.016	-.153 -1.233 -1.088 -.631 -.587 -.614 -.645 -.421 -.165 -.080 -.022 -.018	-.159 -1.400 -1.246 -1.098 -1.004 -.917 -.788 -.660 -.550 -.459 -.386 -.325	-.532 -.842 -.855 -.798 -.778 -.762 -.739 -.725 -.696 -.672 -.641 -.592
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	-.012 -.037 -.098 -.151 -.195 -.230 -.212 -.207 -.182 -.169 -.131	-.009 -.038 -.075 -.100 -.119 -.119 -.072 -.027 -.037 -.112 -.234	-.162 -.122 -.100 -.090 -.074 -.053 -.015 -.076 -.166 -.248 -.367	-.316 -.244 -.148 -.091 -.040 -.019 -.113 -.189 -.285 -.367 -.461

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TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
CLEAN WING - Continued

(f) $M = 0.91$ (repeat tests). Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$
$\frac{y}{b/2}=80$	Upper				
	.000	.461	.003	.402	.650
	.025	.218	1.277	.997	.632
	.075	.221	1.147	.981	.612
	.150	.208	1.047	.931	.597
	.250	.227	.665	.841	.577
	.350	.232	.588	.773	.561
	.450	.228	.518	.711	.545
	.550	.195	.412	.642	.533
	.650	.119	.066	.573	.517
	.750	.053	.024	.515	.508
	.850	.003	.015	.443	.481
	.950	.051	.051	.361	.422
	Lower				
	.950	.026	.002	.254	.406
	.850	.004	.016	.178	.301
	.750	.061	.073	.171	.257
	.650	.120	.118	.152	.194
	.550	.175	.129	.118	.122
	.450	.219	.122	.085	.060
	.350	.206	.072	.013	.035
	.250	.182	.012	.064	.135
	.150	.163	.054	.140	.229
	.075	.135	.162	.169	.331
	.025	.094	.277	.372	.444
$\frac{y}{b/2}=95$	Upper				
	.000	.410	.264	.430	.526
	.025	.173	1.242	.517	.438
	.075	.244	1.131	.534	.445
	.150	.252	.412	.424	.371
	.250	.141	.211	.367	.356
	.350	.169	.115	.399	.429
	.450	.142	.121	.356	.412
	.550	.105	.092	.343	.423
	.650	.055	.076	.331	.415
	.750	.005	.050	.317	.400
	.850	.044	.005	.302	.378
	.950	.054	.016	.267	.334
	Lower				
	.950	.063	.016	.223	.302
	.850	.055	.074	.163	.260
	.750	.001	.076	.177	.289
	.650	.052	.114	.188	.296
	.550	.107	.131	.205	.292
	.450	.132	.202	.201	.247
	.350	.167	.243	.191	.185
	.250	.202	.060	.155	.097
	.150	.241	.084	.021	.100
	.075	.175	.250	.175	.240
	.025	.095	.250	.329	.370



TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
CLEAN WING - Continued

(g) $M = 0.95$ (repeat tests).

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=6.5^\circ$
$\frac{y}{b/2}=20$	Upper	.000	.493	.365
		.025	.068	.654
		.075	.092	.351
		.150	.110	.323
		.250	.174	.334
		.350	.212	.371
		.450	.254	.396
		.550	.278	.424
		.650	.319	.456
		.750	.331	.456
		.850	.321	.447
		.950	.285	.365
	Lower	.950	.264	.197
		.850	.314	.195
		.750	.317	.208
		.650	.314	.198
		.550	.306	.194
		.450	.208	.088
		.350	.171	.032
		.250	.134	.019
		.150	.076	.103
		.075	.069	.169
		.025	.001	.319
$\frac{y}{b/2}=40$	Upper	.000	.484	.247
		.025	.183	.062
		.075	.139	.652
		.150	.224	.447
		.250	.249	.462
		.350	.307	.490
		.450	.356	.519
		.550	.404	.562
		.650	.408	.563
		.750	.362	.529
		.850	.193	.323
		.950	.098	.206
	Lower	.950	.109	.181
		.850	.177	.192
		.750	.319	.201
		.650	.392	.259
		.550	.364	.218
		.450	.345	.183
		.350	.276	.131
		.250	.227	.062
		.150	.183	.020
		.075	.149	.108
		.025	.088	.244
$\frac{y}{b/2}=60$	Upper	.000	.417	.210
		.025	.244	.073
		.075	.272	.954
		.150	.296	.554
		.250	.346	.559
		.350	.394	.581
		.450	.442	.621
		.550	.414	.639
		.650	.310	.649
		.750	.145	.400
		.850	.058	.242
		.950	.003	.161
	Lower	.950	.003	.150
		.850	.062	.175
		.750	.152	.215
		.650	.302	.251
		.550	.393	.258
		.450	.398	.231
		.350	.332	.164
		.250	.288	.104
		.150	.250	.024
		.075	.211	.055
		.025	.126	.172



TABLE I.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
CLEAN WING - Concluded

(g) $M = 0.95$ (repeat tests). Concluded.

	$\frac{x}{c}$	$\alpha = 0^\circ$	$\alpha = 4.4^\circ$	$\alpha = 6.5^\circ$
$\frac{y}{b/2} = .80$	Upper			
	.000	.405	.110	-.048
	.025	.288	1.076	-1.241
	.075	.325	.980	-1.141
	.150	.336	.895	-1.065
	.250	.374	.600	-1.017
	.350	.382	.631	-.993
	.450	.360	.683	-.890
	.550	.291	.740	-.720
	.650	.149	.634	-.510
	.750	.057	.300	-.306
	.850	.005	.159	-.163
	.950	.052	.072	-.044
$\frac{y}{b/2} = .80$	Lower			
	.950	.027	.185	-.115
	.850	.001	.249	-.175
	.750	.079	.293	-.230
	.650	.163	.271	-.213
	.550	.263	.243	-.177
	.450	.343	.242	-.170
	.350	.341	.187	-.104
	.250	.326	.128	-.030
	.150	.259	.068	.039
	.075	.232	.061	.186
	.025	.204	.161	.281
$\frac{y}{b/2} = .95$	Upper			
	.000		.115	-.280
	.025		1.036	-1.194
	.075		.948	-1.125
	.150		.792	-.917
	.250		.721	-.821
	.350		.617	-.682
	.450		.580	-.620
	.550		.484	-.502
	.650		.341	-.437
	.750		.135	-.425
	.850		.073	-.302
	.950		.043	-.148
$\frac{y}{b/2} = .95$	Lower			
	.950		.013	-.009
	.850		.039	-.012
	.750		.187	-.108
	.650		.354	-.250
	.550		.445	-.377
	.450		.420	-.369
	.350		.386	-.334
	.250		.327	-.253
	.150		.116	-.034
	.075		.010	.107
	.025		.164	.266

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TABLE II.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
FENCE-ON CONDITION

(a) $M = 0.50$.

	$\frac{x}{c}$	$\alpha = 0^\circ$	$\alpha = 42^\circ$	$\alpha = 83^\circ$	$\alpha = 125^\circ$	$\alpha = 165^\circ$	$\alpha = 206^\circ$	$\alpha = 246^\circ$
$\frac{y}{b/2} = 20$	Upper	.0000	.433	.006	- 1.788	- 2.399	- 2.504	- 1.109
		.025	.107	.639	- 1.490	- 2.581	- 2.443	- 1.109
		.075	.124	.434	- .443	- 3.178	- 2.541	- 1.109
		.150	.134	.348	- .475	- .686	- 2.214	- 1.108
		.250	.169	.331	- .435	- .579	- 1.337	- 1.108
		.350	.172	.310	- .378	- .496	- .636	- 1.102
		.450	.170	.278	- .366	- .409	- .652	- 1.032
		.550	.188	.283	- .317	- .409	- .607	- 1.063
		.650	.180	.249	- .237	- .376	- .550	- 1.003
		.750	.129	.193	- .157	- .287	- .425	- .922
$\frac{y}{b/2} = 40$	Lower	.850	.098	.132	- .076	- .211	- .368	- .810
		.950	.038	.065	- .076	- .120	- .259	- .702
		.000	.459	.285	- 1.245	- 1.548	- 1.165	- 1.101
		.025	.147	.836	- 1.069	- 1.234	- 1.115	- 1.081
		.075	.153	.536	- .901	- 1.253	- 1.096	- 1.096
		.150	.160	.422	- .765	- 1.251	- 1.054	- 1.096
		.250	.170	.361	- .621	- 1.237	- 1.027	- 1.056
		.350	.185	.334	- .494	- 1.124	- .999	- 1.030
		.450	.189	.306	- .382	- .962	- .962	- 1.020
		.550	.172	.262	- .290	- .804	- .902	- 1.004
$\frac{y}{b/2} = 60$	Upper	.650	.140	.208	- .209	- .654	- .821	- .974
		.750	.095	.143	- .131	- .527	- .751	- .915
		.850	.077	.073	- .072	- .404	- .664	- .826
		.950	.006	.020	- .012	- .303	- .619	- .784
		.000	.438	.092	- .430	- .752	- .859	- .783
		.025	.141	.758	- .694	- .694	- .698	- .764
		.075	.149	.607	- .661	- .693	- .698	- .764
		.150	.163	.478	- .616	- .667	- .682	- .758
		.250	.177	.386	- .565	- .616	- .649	- .729
		.350	.170	.320	- .550	- .570	- .627	- .717
$\frac{y}{b/2} = 80$	Lower	.450	.162	.269	- .483	- .514	- .586	- .709
		.550	.144	.223	- .394	- .462	- .532	- .709
		.650	.116	.170	- .361	- .423	- .469	- .697
		.750	.082	.114	- .297	- .388	- .435	- .672
		.850	.033	.055	- .237	- .320	- .394	- .648
		.950	.000	.004	- .192	- .293	- .333	- .612
		.000	.438	.092	- .430	- .752	- .859	- .783
		.025	.141	.758	- .694	- .694	- .698	- .764
		.075	.149	.607	- .661	- .693	- .698	- .764
		.150	.163	.478	- .616	- .667	- .682	- .758
$\frac{y}{b/2} = 100$	Upper	.250	.177	.386	- .565	- .616	- .649	- .729
		.350	.170	.320	- .550	- .570	- .627	- .717
		.450	.162	.269	- .483	- .514	- .586	- .709
		.550	.144	.223	- .394	- .462	- .532	- .709
		.650	.116	.170	- .361	- .423	- .469	- .697
		.750	.082	.114	- .297	- .388	- .435	- .672
		.850	.033	.055	- .237	- .320	- .394	- .648
		.950	.000	.004	- .192	- .293	- .333	- .612
		.000	.438	.092	- .430	- .752	- .859	- .783
		.025	.141	.758	- .694	- .694	- .698	- .764
$\frac{y}{b/2} = 120$	Lower	.075	.149	.607	- .661	- .693	- .698	- .764
		.150	.163	.478	- .616	- .667	- .682	- .758
		.250	.177	.386	- .565	- .616	- .649	- .729
		.350	.170	.320	- .550	- .570	- .627	- .717
		.450	.162	.269	- .483	- .514	- .586	- .709
		.550	.144	.223	- .394	- .462	- .532	- .709
		.650	.116	.170	- .361	- .423	- .469	- .697
		.750	.082	.114	- .297	- .388	- .435	- .672
		.850	.033	.055	- .237	- .320	- .394	- .648
		.950	.000	.004	- .192	- .293	- .333	- .612

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TABLE II.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
FENCE-ON CONDITION - Continued

(a) $M = 0.50$. Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=42^\circ$	$\alpha=83^\circ$	$\alpha=125^\circ$	$\alpha=165^\circ$	$\alpha=206^\circ$	$\alpha=246^\circ$	
$\frac{y}{b/2}=80$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	.441 .145 .156 .153 .167 .166 .161 .144 .107 .065 .028 .014	-.420 -.886 -.558 -.415 -.341 -.294 -.258 -.214 -.147 -.091 -.032 .014	-1.292 -1.345 -1.345 -1.194 -.790 -.509 -.377 -.289 -.213 -.154 -.094 .041	-1.681 -1.622 -1.528 -1.751 -1.617 -.730 -.272 -.206 -.183 -.172 -.142 .084	-1.577 -1.428 -1.541 -1.714 -1.610 -.991 -.642 -.444 -.341 -.314 -.288 .245	-.639 -.639 -.639 -.634 -.626 -.617 -.600 -.583 -.552 -.527 -.496 -.435	-.688 -.689 -.687 -.677 -.669 -.658 -.641 -.625 -.602 -.580 -.550 -.485
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	-.055 -.027 -.072 .127 .141 .160 .676 .144 .134 .127 .005	-.055 -.013 -.050 .079 .074 .079 .050 .006 .067 .160 .309	-.069 -.013 -.038 .047 .025 .008 .120 .204 .316 .441 -1.154	-.107 -.038 -.046 .043 .001 .038 -.682 .194 .292 -1.141 .468	-.192 -.079 -.059 -.034 .030 .076 -.691 .253 .350 .442 .452	-.363 -.195 -.142 .091 .004 .048 -.340 .252 .318 .433 .445	-.378 -.188 -.116 -.058 .033 .106 -.739 .309 .406 .466 .425

$\frac{y}{b/2}=95$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	.397 .120 .166 .115 .123 .136 .124 .108 .031 .034 .005 .038	-.597 -.690 -.500 -.293 -.225 -.212 -.181 -.153 -.096 -.072 -.039 .008	-.659 -.632 -.603 -.463 -.441 -.452 -.434 -.456 -.373 -.410 -.359 .292	-.994 -.720 -.752 -.620 -.619 -.677 -.672 -.653 -.665 -.543 -.471 .382	-.824 -.756 -.793 -.674 -.633 -.679 -.670 -.637 -.583 -.508 -.439 .358	-.462 -.453 -.460 -.378 -.412 -.460 -.457 -.452 -.452 -.420 -.394 .351	-.519 -.504 -.511 -.434 -.462 -.519 -.506 -.502 -.458 -.450 -.419 .371
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	-.020 -.020 -.026 .074 .108 .117 .137 .149 .139 .139 .109	-.011 -.002 -.041 -.072 .094 .094 .092 .081 .009 .093 .241	-.090 -.032 -.057 -.069 .083 .083 .064 .035 .067 .196 .343	-.129 -.054 -.061 -.068 .074 .060 .022 .025 .156 .280 .392	-.153 -.069 -.079 -.075 .064 .036 .008 .074 .216 .337 .406	-.233 -.147 -.153 -.129 -.106 -.067 .001 .069 .206 .325 .382	-.243 -.142 -.144 -.107 -.076 -.030 .033 -.112 -.259 -.359 .358

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TABLE II. - TABULATION OF PRESSURE COEFFICIENTS FOR THE
FENCE-ON CONDITION - Continued

(b) $M = 0.70$.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=42^\circ$	$\alpha=84^\circ$	$\alpha=126^\circ$	$\alpha=167^\circ$	$\alpha=208^\circ$	$\alpha=248^\circ$
$\frac{y}{b/2}=20$	Upper							
	0.00	.456	.129	.515	1.249	1.663	.892	.867
	0.25	.088	.600	1.653	2.144	1.495	.893	.867
	0.75	.106	.408	1.651	2.309	1.476	.898	.872
	1.50	.118	.342	.351	1.598	1.407	.898	.880
	2.50	.160	.334	.498	.784	1.320	.902	.893
	3.50	.169	.315	.472	.497	1.168	.901	.899
	4.50	.188	.287	.414	.393	.960	.849	.858
	5.50	.180	.295	.348	.422	.847	.885	.908
	6.50	.180	.263	.348	.411	.735	.866	.905
	7.50	.134	.198	.233	.326	.612	.819	.893
	8.50	.097	.130	.164	.252	.532	.811	.879
	9.50	.047	.050	.069	.156	.424	.740	.856
$\frac{y}{b/2}=40$	Lower							
	9.50	.046	.015	.005	.018	.072	.147	.130
	8.50	.100	.046	.008	.011	.008	.001	.038
	7.50	.145	.071	.008	.037	.066	.107	.157
	6.50	.185	.088	.008	.060	.111	.168	.233
	5.50	.219	.099	.003	.085	.152	.227	.299
	4.50	.190	.057	.050	.153	.250	.315	.395
	3.50	.167	.015	.108	.218	.307	.403	.484
	2.50	.149	.023	.162	.288	.388	.480	.571
	1.50	.108	.093	.248	.392	.493	.586	.668
	0.75	.123	.164	.350	.493	.590	.670	.724
	0.25	.051	.307	.493	.582	.624	.659	.662
$\frac{y}{b/2}=60$	Upper							
	0.00	.462	.084	.824	1.190	1.047	.890	.948
	0.25	.146	.852	1.469	1.080	.983	.887	.938
	0.75	.157	.557	1.250	1.055	.959	.892	.941
	1.50	.164	.436	.897	1.017	.939	.895	.944
	2.50	.176	.372	.739	.994	.905	.875	.943
	3.50	.194	.347	.602	.970	.884	.866	.942
	4.50	.200	.319	.487	.909	.861	.857	.938
	5.50	.183	.269	.388	.830	.837	.846	.928
	6.50	.145	.204	.302	.739	.800	.832	.916
	7.50	.093	.134	.218	.658	.752	.806	.889
	8.50	.048	.063	.140	.553	.711	.760	.862
	9.50	.003	.009	.074	.466	.656	.725	.839
$\frac{y}{b/2}=80$	Lower							
	9.50	.016	.001	.013	.126	.255	.296	.296
	8.50	.047	.012	.002	.046	.127	.142	.133
	7.50	.079	.023	.004	.001	.028	.020	.007
	6.50	.150	.069	.014	.009	.013	.038	.084
	5.50	.182	.075	.007	.048	.078	.126	.182
	4.50	.185	.059	.030	.106	.158	.209	.275
	3.50	.185	.034	.078	.160	.224	.286	.359
	2.50	.172	.014	.141	.242	.312	.387	.449
	1.50	.150	.074	.124	.339	.409	.482	.535
	0.75	.137	.158	.331	.439	.498	.552	.584
	0.25	.101	.291	.447	.525	.527	.528	.502

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TABLE II.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
FENCE-ON CONDITION - Continued
(b) $M = 0.70$. Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=42^\circ$	$\alpha=84^\circ$	$\alpha=126^\circ$	$\alpha=167^\circ$	$\alpha=208^\circ$	$\alpha=248^\circ$		
$\frac{y}{b/2}=80$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	.454 - .162 .160 .170 .177 .174 .155 .109 .058 .022 .033	.203 - .919 .637 .447 .358 .304 .254 .207 .136 .077 .024 .028	- - 1.098 1.085 1.073 -.985 -.796 -.617 -.416 -.238 -.136 -.066 -.018	- - 1.429 1.292 1.358 1.518 1.592 -.982 -.347 -.258 -.268 -.247 -.189 -.127	- - 1.569 1.426 1.437 1.450 1.584 1.186 -.649 -.490 -.333 -.401 -.371 -.313	- - .611 .604 .613 .610 .591 .585 .566 .552 .528 .502 .469 .405	- - .688 .687 .700 .698 .678 .662 .649 .634 .612 .585 .555 .484	
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	.048 .023 .065 .129 .144 .166 .166 .160 .144 .137 .110	.044 - .043 .074 .065 -.072 -.032 .018 .082 .162 .312	- - .065 .045 .047 -.060 -.033 -.028 .046 .107 .202 .311 .443	- - .150 .083 .077 .023 -.007 .081 .169 .265 .373 .457	- - .255 .132 .101 .076 .009 .045 .134 .233 .268 .426 .454	- - .356 .192 .137 .089 .002 .061 .166 .266 .365 .451 .472	- - .395 .201 .131 .064 .031 .105 .205 .320 .413 .475 .441	
	$\frac{y}{b/2}=95$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	.431 - .108 .161 .117 .117 .133 .120 -.096 .049 .016 .026 .062	.387 - .687 .530 .299 .215 .203 .168 .131 .085 .055 .010 .010	- - .584 .614 .582 .451 .427 .448 .419 .339 .369 .327 .264 .085	- - .922 .702 .723 .605 .572 .614 .601 .606 .536 .542 .524 .467 .393	- - .644 .576 .631 .561 .561 .601 .571 .536 .501 .441 .389 .329	- - .446 .431 .446 .365 .384 .435 .442 .433 .441 .404 .382 .332	- - .511 .499 .504 .417 .443 .509 .500 .496 .462 .455 .430 .381
		Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	.042 .050 .009 .045 .096 .109 .130 .147 .143 .143 .095	.010 .013 .021 .053 .075 .083 .089 .073 .004 .110 .261	- - .014 .047 .071 .085 .088 .071 .045 .073 .206 .364 .364	- - .129 .095 .066 .078 .084 .070 .038 .017 .154 .285 .404	- - .179 .095 -.011 .114 .101 .068 .019 .055 .205 .331 .409	- - .239 .148 .167 .154 .121 .077 .013 .070 .223 .341 .393	- - .268 .170 .182 .158 .117 .065 .008 .100 .252 .357 .366

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TABLE II.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
FENCE-ON CONDITION - Continued

(c) $M = 0.85$.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.3^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$	$\alpha=16.8^\circ$	
$\frac{y}{b/2}=20$	Upper	.000	.478	.258	.120	.573	1.016
		.025	.071	.565	1.282	1.615	1.391
		.075	.096	.405	1.213	1.612	1.364
		.150	.120	.360	.848	1.613	1.310
		.250	.168	.369	.512	.658	1.238
		.350	.185	.373	.538	.440	1.114
		.450	.191	.360	.568	.476	.936
		.550	.231	.383	.585	.661	.879
		.650	.226	.361	.503	.599	.790
		.750	.168	.274	.284	.499	.712
		.850	.131	.173	.200	.446	.649
		.950	.058	.074	.100	.276	.550
Lower		.950	.059	.032	.021	.081	.098
		.850	.126	.067	.021	.024	.012
		.750	.189	.089	.020	.015	.075
		.650	.228	.103	.012	.044	.122
		.550	.263	.114	.007	.071	.164
		.450	.219	.064	.054	.146	.249
		.350	.179	.016	.114	.218	.328
		.250	.149	.029	.171	.289	.408
		.150	.105	.104	.260	.392	.514
		.075	.099	.168	.352	.493	.615
		.025	.037	.317	.503	.612	.677

$\frac{y}{b/2}=40$	Upper	.000	.482	.079	.386	.847	1.079
		.025	.152	1.341	1.596	.914	1.016
		.075	.170	.569	1.428	.917	1.000
		.150	.187	.487	.855	.922	.972
		.250	.207	.470	.759	.894	.931
		.350	.236	.433	.671	.879	.905
		.450	.249	.407	.574	.865	.886
		.550	.225	.334	.454	.815	.861
		.650	.177	.236	.349	.763	.838
		.750	.111	.147	.251	.709	.812
		.850	.054	.069	.168	.650	.779
		.950	.005	.014	.112	.593	.754
Lower		.950	.013	.007	.037	.222	.279
		.850	.048	.022	.021	.122	.149
		.750	.084	.035	.005	.045	.035
		.650	.176	.089	.032	.030	.008
		.550	.224	.099	.021	.011	.077
		.450	.226	.080	.017	.072	.156
		.350	.226	.050	.062	.135	.228
		.250	.197	.000	.130	.219	.316
		.150	.167	.064	.211	.318	.415
		.075	.147	.144	.310	.414	.506
		.025	.104	.283	.433	.507	.547

$\frac{y}{b/2}=60$	Upper	.000	.446	.102	.184	.523	.870
		.025	.144	1.096	.740	.719	.746
		.075	.160	.774	.712	.704	.747
		.150	.205	.618	.666	.694	.760
		.250	.224	.553	.622	.672	.754
		.350	.208	.362	.591	.654	.717
		.450	.200	.305	.539	.622	.700
		.550	.166	.243	.478	.586	.682
		.650	.134	.186	.425	.543	.661
		.750	.082	.104	.368	.497	.637
		.850	.025	.036	.314	.449	.577
		.950	.020	.012	.272	.410	.558
Lower		.950	.017	.017	.149	.256	.316
		.850	.026	.007	.104	.202	.216
		.750	.082	.040	.070	.140	.142
		.650	.133	.062	.053	.093	.073
		.550	.159	.074	.030	.047	.005
		.450	.204	.070	.003	.008	.063
		.350	.193	.026	.057	.092	.164
		.250	.186	.020	.117	.167	.248
		.150	.173	.075	.199	.263	.351
		.075	.119	.178	.307	.373	.423
		.025	.074	.289	.412	.454	.488

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TABLE II.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
FENCE-ON CONDITION - Continued
(c) $M = 0.85$. Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=43^\circ$	$\alpha=86^\circ$	$\alpha=128^\circ$	$\alpha=168^\circ$		
$\frac{y}{b/2}=80$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	-.459 -.156 -.179 -.179 -.199 -.203 -.197 -.174 -.116 -.063 -.013 .046	-.056 1.212 -.756 -.569 -.422 -.349 -.283 -.214 -.137 -.070 -.014 .041	-.596 1.309 1.263 1.216 1.102 -.913 -.711 -.478 -.296 -.194 -.112 .035	-.977 1.272 1.292 1.405 1.405 1.271 -.577 -.418 -.403 -.369 -.319 .242	-.703 -.636 -.640 -.635 -.612 -.605 -.576 -.557 -.541 -.527 -.507 -.436	
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	-.031 -.006 -.065 -.136 -.161 -.193 -.192 -.185 -.167 -.155 -.127	-.036 -.008 -.052 -.091 -.089 -.092 -.045 -.018 -.080 -.169 -.308	-.092 -.047 -.081 -.097 -.069 -.045 -.030 -.105 -.191 -.290 -.416	-.256 -.164 -.172 -.161 -.102 -.056 -.037 -.127 -.224 -.327 -.427	-.441 -.280 -.233 -.182 -.090 -.022 -.085 -.189 -.293 -.391 -.459	
	$\frac{y}{b/2}=95$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	-.445 -.119 -.191 -.145 -.132 -.151 -.127 -.099 -.059 -.008 -.035 .080	-.312 -.871 -.674 -.372 -.223 -.213 -.172 -.139 -.092 -.056 -.024 .011	-.455 -.547 -.571 -.468 -.470 -.519 -.461 -.425 -.336 -.385 -.360 -.305	-.701 -.578 -.642 -.580 -.606 -.676 -.624 -.596 -.541 -.518 -.467 -.396	-.567 -.475 -.490 -.392 -.406 -.475 -.473 -.457 -.433 -.423 -.400 -.339
		Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	-.060 -.074 -.003 -.047 -.090 -.114 -.140 -.167 -.178 -.164 -.094	-.022 -.045 -.021 -.058 -.090 -.102 -.111 -.115 -.020 -.109 -.270	-.110 -.012 -.064 -.096 -.125 -.135 -.121 -.093 -.054 -.204 -.358	-.184 -.085 -.140 -.170 -.189 -.174 -.136 -.070 -.100 -.244 -.369	-.298 -.203 -.250 -.250 -.232 -.186 -.119 -.020 -.158 -.288 -.383

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TABLE II. - TABULATION OF PRESSURE COEFFICIENTS FOR THE
FENCE-ON CONDITION - Continued

(d) $M = 0.91$.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$
$\frac{y}{b/2}=20$	Upper				
	.000	.490	.320	.015	.387
	.025	.058	.564	1.163	1.401
	.075	.082	.400	1.019	1.401
	.150	.108	.323	.729	1.342
	.250	.170	.356	.481	.621
	.350	.194	.373	.495	.605
	.450	.208	.389	.524	.630
	.550	.255	.406	.567	.669
	.650	.281	.447	.597	.615
	.750	.256	.439	.581	.531
	.850	.163	.407	.582	.494
	.950	.062	.184	.290	.346
$\frac{y}{b/2}=20$	Lower				
	.950	.065	.088	.095	.098
	.850	.152	.110	.060	.026
	.750	.246	.129	.045	.015
	.650	.269	.137	.030	.047
	.550	.328	.141	.016	.077
	.450	.217	.077	.052	.156
	.350	.173	.023	.113	.228
	.250	.139	.022	.177	.299
	.150	.087	.103	.270	.403
	.075	.075	.166	.363	.507
	.025	.016	.316	.512	.625
$\frac{y}{b/2}=40$	Upper				
	.000	.485	.159	.217	.694
	.025	.166	1.183	1.397	1.240
	.075	.187	.597	1.395	1.194
	.150	.203	.498	1.202	1.136
	.250	.231	.476	.726	1.075
	.350	.276	.494	.672	.981
	.450	.309	.528	.693	.928
	.550	.281	.554	.700	.898
	.650	.197	.509	.510	.855
	.750	.117	.236	.357	.799
	.850	.056	.074	.264	.726
	.950	.011	.003	.173	.633
$\frac{y}{b/2}=40$	Lower				
	.950	.015	.020	.084	.208
	.850	.051	.041	.062	.116
	.750	.091	.059	.044	.044
	.650	.187	.125	.071	.038
	.550	.272	.140	.058	.011
	.450	.272	.115	.009	.079
	.350	.264	.079	.043	.138
	.250	.218	.025	.113	.221
	.150	.172	.047	.203	.311
	.075	.141	.133	.300	.416
	.025	.085	.267	.427	.511
$\frac{y}{b/2}=60$	Upper				
	.000	.436	.168	.115	1.022
	.025	.173	1.251	.953	1.438
	.075	.176	1.079	.951	1.438
	.150	.266	.564	.904	1.438
	.250	.356	.746	.861	1.420
	.350	.229	.574	.815	1.408
	.450	.216	.598	.684	1.380
	.550	.164	.282	.574	1.366
	.650	.148	.153	.485	1.329
	.750	.084	.071	.407	1.281
	.850	.027	.011	.326	1.858
	.950	.022	.031	.280	1.143
$\frac{y}{b/2}=60$	Lower				
	.950	.019	.012	.162	.852
	.850	.029	.016	.117	.730
	.750	.087	.054	.092	.634
	.650	.142	.082	.073	.561
	.550	.174	.099	.054	.487
	.450	.221	.102	.030	.410
	.350	.208	.057	.035	.296
	.250	.202	.017	.093	.195
	.150	.201	.041	.173	.064
	.075	.139	.138	.289	.073
	.025	.067	.252	.382	.122

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TABLE II.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
FENCE-ON CONDITION - Continued

(d) $M = 0.91$. Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$
$\frac{y}{b/2}=80$	Upper				
	.000	.460	.033	.390	.780
	.025	.178	1.302	1.113	1.144
	.075	.202	1.402	1.099	1.112
	.150	.193	1.031	1.016	1.073
	.250	.219	.640	.921	.975
	.350	.224	.462	.834	.878
	.450	.216	.195	.738	.818
	.550	.191	.144	.632	.756
	.650	.116	.090	.527	.688
	.750	.054	.038	.420	.625
	.850	.001	.009	.299	.553
	.950	.063	.062	.192	.458
$\frac{y}{b/2}=80$	Lower				
	.950	.020	.028	.178	.436
	.850	.002	.009	.109	.324
	.750	.063	.066	.138	.296
	.650	.136	.120	.149	.238
	.550	.179	.120	.106	.151
	.450	.207	.117	.078	.089
	.350	.198	.066	.003	.012
	.250	.194	.005	.072	.109
	.150	.175	.054	.156	.211
	.075	.161	.139	.255	.312
	.025	.122	.276	.381	.413
$\frac{y}{b/2}=95$	Upper				
	.000	.441	.251	.586	1.400
	.025	.145	1.228	.813	1.285
	.075	.229	1.144	.804	1.329
	.150	.212	.595	.643	1.182
	.250	.146	.358	.554	1.182
	.350	.165	.166	.588	1.308
	.450	.142	.112	.513	1.279
	.550	.096	.112	.468	1.246
	.650	.123	.089	.429	1.174
	.750	.002	.059	.398	1.101
	.850	.040	.032	.364	1.023
	.950	.092	.005	.296	.904
$\frac{y}{b/2}=95$	Lower				
	.950	.070	.038	.129	.801
	.850	.092	.062	.027	.690
	.750	.013	.013	.083	.820
	.650	.041	.055	.117	.886
	.550	.091	.089	.158	.891
	.450	.117	.111	.186	.815
	.350	.151	.151	.198	.726
	.250	.178	.209	.145	.582
	.150	.226	.042	.043	.300
	.075	.166	.101	.195	.110
	.025	.077	.262	.341	.069

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TABLE II.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
FENCE-ON CONDITION - Continued.

(e) $M = 0.93$ and 0.95 .

$M=93$					$M=95$				
	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=8.6^\circ$		$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=6.5^\circ$
$\frac{y}{b/2}=20$	Upper	.000	.496	.343	.058	.000	.504		.236
	.025	-.048	-.347	-1.123		.025	.039		.798
	.075	-.073	-.392	-.952		.075	.063		.550
	.150	-.167	-.303	-.678		.150	.094		.425
	.250	-.197	-.343	-.486		.250	.156		.406
	.350	-.218	-.349	-.488		.350	.196		.405
	.450	-.252	-.377	-.508		.450	.220		.427
	.550	-.291	-.407	-.553		.550	.248		.465
	.650	-.269	-.440	-.584		.650	.287		.498
	.750	-.247	-.433	-.571		.750	.301		.481
$\frac{y}{b/2}=40$	Upper	.850	-.119	-.426	-.594	.850	.292		.500
	.950	-.120	-.273	-.435		.950	.230		.378
	Lower	.950	.119	.136	.162	.950	.224	.197	.173
	.850	.246	.148	.114		.850	.303	.195	.142
	.750	.313	.163	.089		.750	.303	.200	.137
	.650	.301	.160	.066		.650	.283	.178	.116
	.550	.334	.160	.046		.550	.306	.193	.104
	.450	.225	.081	.028		.450	.210	.085	.020
	.350	.182	.027	.097		.350	.164	.035	.041
	.250	.149	.022	.162		.250	.130	.016	.102
$\frac{y}{b/2}=60$	Upper	.150	.091	.259		.150	.071	.102	.189
	.075	.085	.167	.352		.075	.070	.166	.272
	.025	.023	.312	.501		.025	.003	.309	.419
	Lower	.000	.487	.186	.152	.000	.486	.224	.063
	.025	.152	1.125	1.327		.025	.146	1.052	.276
	.075	.179	.568	1.284		.075	.173	.530	.109
	.150	.204	.487	1.207		.150	.196	.456	.617
	.250	.240	.458	1.700		.250	.231	.438	.494
	.350	.290	.481	.613		.350	.288	.466	.532
	.450	.331	.517	.653		.450	.327	.502	.562
$\frac{y}{b/2}=80$	Upper	.550	.360	.547	.683	.550	.360	.534	.597
	.650	.304	.531	.689		.650	.381	.527	.595
	.750	.136	.447	.615		.750	.308	.522	.563
	.850	.051	.179	.434		.850	.158	.321	.396
	.950	.003	.060	.252		.950	.043	.177	.208
	Lower	.950	.017	.061	.186	.950	.061	.155	.173
	.850	.048	.082	.157		.850	.169	.182	.163
	.750	.106	.098	.119		.750	.282	.182	.133
	.650	.301	.171	.143		.650	.393	.255	.181
	.550	.352	.183	.112		.550	.366	.236	.165
$\frac{y}{b/2}=100$	Upper	.450	.337	.144	.051	.450	.330	.173	.103
	.350	.283	.102	.005		.350	.272	.123	.051
	.250	.229	.036	.080		.250	.219	.056	.021
	.150	.191	.039	.165		.150	.178	.020	.110
	.075	.160	.119	.272		.075	.152	.110	.204
	.025	.110	.254	.409		.025	.095	.238	.343
	Lower	.000	.423	.193	.070	.000	.436	.219	.092
	.025	.170	1.179	1.314		.025	.168	1.091	.288
	.075	.171	.538	1.205		.075	.157	.938	.143
	.150	.306	.538	1.017		.150	.304	.501	1.019
$\frac{y}{b/2}=120$	Upper	.250	.414	.706	1.025	.250	.399	.655	.853
	.350	.311	.570	.946		.350	.366	.588	.644
	.450	.244	.597	.830		.450	.392	.589	.659
	.550	.153	.624	.719		.550	.337	.631	.679
	.650	.156	.329	.603		.650	.250	.623	.652
	.750	.087	.111	.502		.750	.088	.330	.402
	.850	.027	.019	.217		.850	.169	.162	.181
	.950	.021	.030	.365		.950	.031	.098	.201
	Lower	.950	.006	.003	.223	.950	.020	.103	.152
	.850	.037	.034	.178		.850	.031	.129	.159
$\frac{y}{b/2}=140$	Upper	.750	.099	.075	.154	.750	.104	.176	.162
	.650	.151	.112	.144		.650	.240	.218	.193
	.550	.198	.132	.128		.550	.356	.221	.186
	.450	.261	.136	.098		.450	.389	.153	.161
	.350	.279	.090	.028		.350	.326	.097	.084
	.250	.267	.044	.040		.250	.285	.035	.022
	.150	.285	.011	.121		.150	.328	.102	.051
	.075	.207	.110	.247		.075	.238	.199	.172
	.025	.139	.227	.352		.025	.137	.199	.285

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TABLE II.- TABULATION OF PRESSURE COEFFICIENTS FOR THE

FENCE-ON CONDITION - Concluded

(e) $M = 0.93$ and 0.95 . Concluded.

		$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=8.6^\circ$			$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=6.5^\circ$
$\frac{y}{b/2}=80$	Upper	.0000	.446	.084	.261	$\frac{y}{b/2}=80$	Upper	.0000	.407	.140	.005
		.025	.199	1.326	1.328			.025	.249	1.095	1.246
		.075	.221	1.326	1.320			.075	.288	.985	1.249
		.150	.209	.969	1.182			.150	.298	.863	1.074
		.250	.236	.623	1.112			.250	.324	.581	1.021
		.350	.231	.664	1.025			.350	.320	.642	.922
		.450	.231	.567	.916			.450	.296	.673	.826
		.550	.224	.193	.769			.550	.246	.713	.751
		.650	.129	.058	.617			.650	.139	.477	.682
		.750	.054	.003	.598			.750	.045	.203	.387
		.850	.001	.034	.520			.850	.016	.070	.225
		.950	.060	.074	.351			.950	.078	.012	.100
$\frac{y}{b/2}=80$	Lower	.950	.021	.024	.279	$\frac{y}{b/2}=80$	Lower	.950	.001	.133	.262
		.850	.002	.011	.213			.850	.016	.164	.250
		.750	.068	.093	.240			.750	.058	.243	.277
		.650	.157	.157	.225			.650	.160	.255	.257
		.550	.220	.148	.171			.550	.229	.223	.212
		.450	.236	.144	.144			.450	.292	.227	.196
		.350	.224	.092	.069			.350	.305	.171	.123
		.250	.215	.034	.008			.250	.304	.114	.049
		.150	.207	.025	.087			.150	.288	.057	.024
		.075	.202	.105	.191			.075	.259	.022	.114
		.025	.172	.241	.326			.025	.218	.160	.255
$\frac{y}{b/2}=95$	Upper	.0000	.462	.195	.501	$\frac{y}{b/2}=95$	Upper	.0000	.434	.104	.258
		.025	.134	1.165	1.100			.025	.178	1.053	1.154
		.075	.226	1.092	1.083			.075	.265	.977	1.111
		.150	.238	.850	.927			.150	.254	.783	.889
		.250	.179	.507	.715			.250	.245	.716	.831
		.350	.158	.255	.820			.350	.195	.549	.962
		.450	.142	.047	.744			.450	.122	.435	.898
		.550	.097	.056	.718			.550	.074	.271	.766
		.650	.138	.048	.619			.650	.013	.077	.360
		.750	.004	.041	.547			.750	.025	.036	.444
		.850	.050	.011	.470			.850	.071	.005	.217
		.950	.099	.019	.379			.950	.115	.048	.083
$\frac{y}{b/2}=95$	Lower	.950	.077	.050	.192	$\frac{y}{b/2}=95$	Lower	.950	.091	.056	.080
		.850	.095	.073	.109			.850	.108	.065	.094
		.750	.013	.003	.216			.750	.031	.053	.274
		.650	.043	.043	.307			.650	.021	.189	.380
		.550	.097	.075	.367			.550	.074	.341	.414
		.450	.118	.144	.348			.450	.097	.374	.379
		.350	.159	.280	.300			.350	.209	.359	.340
		.250	.236	.252	.214			.250	.312	.300	.255
		.150	.254	.055	.004			.150	.265	.088	.030
		.075	.182	.084	.152			.075	.221	.038	.106
		.025	.121	.243	.304			.025	.160	.185	.257

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TABLE III.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
LEADING-EDGE-NOTCH CONDITION

(a) $M = 0.70$.

		$\alpha=0^\circ$	$\alpha=42^\circ$	$\alpha=84^\circ$	$\alpha=126^\circ$	$\alpha=167^\circ$	$\alpha=208^\circ$	$\alpha=248^\circ$
$\frac{y}{b/2}=20$	Upper	.000	.454	.107	.602	1.324	1.757	.893
	.025	-.109	.640	1.725	2.245	1.685	.901	.822
	.050	-.123	.444	1.800	2.295	1.584	.904	.825
	.075	-.134	.368	.381	1.708	1.516	.904	.829
	.100	-.173	.358	.504	.750	1.425	.907	.834
	.150	-.188	.346	.504	.606	1.251	.908	.844
	.200	-.202	.333	.455	.458	1.041	.897	.852
	.250	-.206	.320	.417	.448	.858	.895	.858
	.300	-.195	.287	.357	.428	.734	.876	.855
	.350	-.148	.218	.263	.345	.612	.842	.839
	.400	-.108	.152	.173	.260	.518	.801	.825
	.450	-.048	.075	.079	.166	.407	.756	.812
$\frac{y}{b/2}=40$	Lower	.950	.048	.023	.000	.020	.146	.107
	.850	-.092	.047	.008	.022	.033	.021	.074
	.750	-.140	.077	.001	.044	.091	.113	.180
	.650	-.095	.093	.005	.057	.123	.188	.247
	.550	-.218	.066	.010	.090	.170	.240	.326
	.450	-.183	.017	.061	.159	.251	.324	.414
	.350	-.159	.020	.117	.228	.324	.406	.501
	.250	-.139	.088	.177	.297	.403	.488	.584
	.150	-.104	.159	.266	.403	.508	.596	.684
	.075	-.097	.311	.360	.502	.605	.657	.753
	.025	-.031	.015	.502	.585	.629	.666	.674
$\frac{y}{b/2}=60$	Upper	.000	.460	.057	.842	1.253	1.071	.938
	.025	-.165	.927	1.404	1.141	1.036	.902	.951
	.050	-.171	.932	1.231	1.113	.921	.900	.949
	.075	-.173	.937	.986	1.062	.997	.889	.944
	.100	-.200	.391	.821	1.027	.963	.882	.941
	.150	-.206	.363	.666	.990	.945	.872	.937
	.200	-.190	.330	.526	.930	.929	.862	.937
	.250	-.148	.282	.404	.845	.895	.853	.923
	.300	-.095	.213	.305	.758	.856	.841	.909
	.350	-.046	.142	.217	.670	.811	.811	.878
	.400	.000	.074	.138	.572	.753	.764	.849
	.450	.001	.018	.073	.480	.703	.719	.824
$\frac{y}{b/2}=80$	Lower	.950	.019	.011	.007	.130	.259	.276
	.850	-.043	.018	.006	.045	.045	.134	.102
	.750	-.031	.031	.013	.006	.116	.011	.037
	.650	-.141	.070	.001	.018	.035	.054	.116
	.550	-.099	.090	.015	.039	.099	.129	.186
	.450	-.188	.067	.041	.106	.167	.215	.292
	.350	-.184	.042	.087	.167	.242	.299	.377
	.250	-.165	.008	.153	.247	.328	.388	.461
	.150	-.146	.071	.235	.344	.425	.483	.547
	.075	.130	.155	.336	.442	.513	.555	.592
	.025	.083	.295	.455	.517	.532	.524	.507
$\frac{y}{b/2}=100$	Upper	.000	.435	.798	.397	.666	.829	.892
	.025	-.169	.653	.753	.678	.678	.744	.868
	.050	-.171	.549	.724	.672	.785	.858	1.009
	.075	-.436	.436	.680	.667	.783	.829	.903
	.100	-.191	.363	.613	.645	.696	.675	.710
	.150	-.183	.304	.566	.619	.684	.669	.699
	.200	-.180	.242	.516	.588	.667	.669	.702
	.250	-.154	.174	.463	.559	.653	.673	.706
	.300	-.117	.130	.421	.525	.640	.675	.694
	.350	-.078	.062	.371	.490	.611	.665	.680
	.400	.031	.010	.311	.446	.579	.638	.658
	.450	.014	.002	.267	.398	.544	.607	.632
$\frac{y}{b/2}=120$	Lower	.950	.014	.024	.100	.192	.266	.270
	.850	-.017	.047	.057	.129	.171	.174	.140
	.750	-.065	.065	.033	.087	.100	.083	.047
	.650	-.116	.073	.019	.039	.039	.009	.042
	.550	-.157	.066	.001	.010	.026	.065	.126
	.450	-.179	.019	.023	.049	.096	.139	.205
	.350	-.162	.109	.086	.139	.192	.244	.307
	.250	-.151	.148	.148	.209	.288	.335	.396
	.150	-.125	.096	.236	.296	.368	.409	.471
	.075	-.115	.137	.277	.351	.414	.449	.472
	.025	.083	.255	.405	.417	.401	.417	.472

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TABLE III.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
LEADING-EDGE-NOTCH CONDITION - Continued

(a) $M = 0.70$. Concluded.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=42^\circ$	$\alpha=84^\circ$	$\alpha=126^\circ$	$\alpha=167^\circ$	$\alpha=208^\circ$	$\alpha=248^\circ$
$\frac{y}{b/2}=80$	Upper							
	.000	.459	.249	.919	1.393	.561	.600	.655
	.025	.164	.967	1.087	1.228	.483	.607	.649
	.075	.170	.679	1.127	1.261	.478	.591	.656
	.150	.158	.468	1.148	1.375	.469	.583	.647
	.250	.174	.370	1.090	1.577	.459	.571	.638
	.350	.174	.308	.816	.676	.447	.563	.622
	.450	.173	.260	.443	.292	.440	.554	.610
	.550	.152	.205	.242	.212	.434	.540	.595
	.650	.103	.136	.134	.215	.425	.518	.574
	.750	.054	.078	.079	.236	.418	.492	.552
	.850	.009	.024	.044	.248	.402	.461	.519
	.950	.030	.017	.019	.221	.361	.410	.461
$\frac{y}{b/2}=80$	Lower							
	.950	.006	.006	.057	.147	.283	.297	.304
	.850	.009	.005	.037	.086	.175	.174	.162
	.750	.009	.038	.051	.082	.136	.124	.093
	.650	.007	.062	.046	.056	.086	.058	.016
	.550	.007	.069	.031	.025	.030	.011	.063
	.450	.017	.073	.008	.013	.030	.081	.137
	.350	.015	.030	.058	.082	.116	.161	.243
	.250	.140	.019	.130	.181	.223	.277	.339
	.150	.072	.063	.176	.251	.302	.329	.372
	.075	.369	.295	.306	.328	.354	.369	.419
	.025	.072	.326	.450	.460	.489	.480	.459
$\frac{y}{b/2}=95$	Upper							
	.000	.385	.447	.636	.883	.461	.454	.492
	.025	.145	.690	.681	.691	.396	.438	.479
	.075	.186	.543	.631	.681	.405	.444	.485
	.150	.146	.348	.510	.610	.350	.385	.421
	.250	.129	.251	.462	.588	.350	.388	.425
	.350	.147	.244	.539	.652	.398	.447	.490
	.450	.130	.199	.546	.658	.394	.447	.486
	.550	.109	.161	.524	.613	.387	.442	.486
	.650	.017	.099	.474	.543	.385	.423	.444
	.750	.036	.084	.408	.455	.361	.418	.450
	.850	.012	.052	.342	.381	.340	.396	.419
	.950	.022	.031	.202	.255	.282	.320	.337
$\frac{y}{b/2}=95$	Lower							
	.950	.032	.010	.063	.126	.225	.254	.261
	.850	.021	.007	.025	.077	.167	.183	.186
	.750	.022	.043	.050	.093	.167	.174	.169
	.650	.066	.076	.073	.105	.157	.157	.142
	.550	.105	.102	.089	.111	.143	.131	.109
	.450	.124	.110	.089	.093	.104	.084	.053
	.350	.140	.109	.071	.054	.048	.017	.021
	.250	.161	.100	.039	.002	.023	.064	.108
	.150	.149	.019	.074	.139	.169	.216	.260
	.075	.145	.085	.209	.277	.293	.332	.359
	.025	.088	.246	.368	.395	.390	.390	.373

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TABLE III.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
LEADING-EDGE-NOTCH CONDITION - Continued

(b) $M = 0.91$.

	$\frac{x}{c}$	$\alpha=0^\circ$	$\alpha=4.4^\circ$	$\alpha=8.6^\circ$	$\alpha=12.8^\circ$			
$\frac{y}{b/2}=20$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	.489 - .069 .094 .113 .172 .207 .238 .258 .289 .236 .163 .071	- - - .308 .703 .401 .341 .353 .393 .417 .438 .472 .464 .412 .183	- - 1.044 1.263 1.038 - .739 .513 .550 .574 .607 .622 .619 .600 .410	- .450 1.418 1.340 1.285 1.710 1.615 1.589 1.514 1.567 1.610 1.547 1.332		
	Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	- - .067 .138 .232 .263 .307 .205 .164 .134 .083 .009 .005	- - - .081 .093 .118 .124 .133 .068 .015 .033 .115 .182 .330	- - - .129 .074 .060 .050 .029 .044 .108 .173 .266 .363 .515	- .070 1.010 1.047 1.085 1.110 1.184 1.258 1.328 1.432 1.535 1.649		
	$\frac{y}{b/2}=40$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	.499 - .163 .181 1.502 1.230 1.272 1.301 1.257 1.188 1.109 1.048 .008	- 1.166 1.181 1.638 1.515 1.496 1.513 1.540 1.573 1.465 1.231 1.084 1.014	- - 1.198 1.415 1.316 1.216 1.758 1.700 1.714 1.730 1.707 1.446 1.230 1.119	- .724 1.149 1.088 1.019 1.939 1.888 1.866 1.830 1.789 1.737 1.688 1.613	
		Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	- - .001 .039 .079 1.179 1.213 1.259 1.252 1.210 1.166 1.132 1.078	- - - .024 .038 .053 1.112 1.118 1.110 1.077 1.019 1.054 1.339 1.277	- - - .077 1.070 1.058 1.085 1.058 1.021 1.031 1.103 1.192 1.293 1.421	- 1.193 1.093 1.015 1.000 1.050 1.107 1.173 1.254 1.347 1.443 1.535	
		$\frac{y}{b/2}=60$	Upper	.000 .025 .075 .150 .250 .350 .450 .550 .650 .750 .850 .950	.426 - .208 1.223 1.193 1.254 1.228 1.217 1.179 1.132 1.086 1.034 1.022	- 1.167 1.235 1.113 1.483 1.654 1.616 1.617 1.285 1.138 1.072 1.020 1.016	- - 1.143 1.158 1.122 1.968 1.930 1.805 1.675 1.569 1.487 1.414 1.346 1.286	- .481 1.741 1.745 1.738 1.716 1.691 1.662 1.641 1.608 1.574 1.541 1.491
			Lower	.950 .850 .750 .650 .550 .450 .350 .250 .150 .075 .025	.021 - 1.025 1.080 1.134 1.182 1.212 1.197 1.186 1.161 1.154 1.059	- - - 1.001 1.026 1.059 1.083 1.098 1.095 1.048 1.004 1.086 1.098 1.235	- - - 1.174 1.126 1.104 1.085 1.066 1.044 1.025 1.097 1.177 1.221 1.362	- 1.290 1.194 1.137 1.087 1.033 1.024 1.117 1.204 1.287 1.346 1.446

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TABLE III.- TABULATION OF PRESSURE COEFFICIENTS FOR THE
LEADING-EDGE-NOTCH CONDITION - Concluded

(b) $M = 0.91$. Concluded.

	$\frac{x}{c}$	$\alpha = 0^\circ$	$\alpha = 4.4^\circ$	$\alpha = 8.6^\circ$	$\alpha = 12.8^\circ$
$\frac{y}{b/2} = 80$	Upper				
	.000	.468	.003	.405	.589
	.025	.187	1.269	.969	.571
	.075	.197	1.149	.969	.554
	.150	.189	1.050	.920	.536
	.250	.209	.675	.832	.517
	.350	.209	.415	.756	.502
	.450	.209	.171	.694	.484
	.550	.180	.125	.625	.478
	.650	.108	.077	.558	.467
	.750	.049	.029	.502	.456
	.850	.008	.017	.430	.434
	.950	.059	.055	.346	.375
$\frac{y}{b/2} = 80$	Lower				
	.950	.038	.002	.231	.343
	.850	.017	.009	.154	.248
	.750	.042	.066	.150	.212
	.650	.100	.100	.135	.161
	.550	.159	.111	.104	.097
	.450	.204	.106	.072	.038
	.350	.191	.058	.002	.058
	.250	.179	.004	.072	.159
	.150	.135	.067	.164	.257
	.075	.352	.274	.278	.283
	.025	.095	.294	.382	.463
$\frac{y}{b/2} = 95$	Upper				
	.000	.417	.263	.650	.744
	.025	.141	1.209	.872	.635
	.075	.200	1.101	.806	.655
	.150	.192	.623	.672	.544
	.250	.124	.382	.560	.517
	.350	.151	.205	.588	.621
	.450	.115	.132	.524	.611
	.550	.100	.126	.501	.594
	.650	.042	.107	.452	.530
	.750	.007	.076	.420	.469
	.850	.058	.049	.371	.405
	.950	.067	.004	.255	.280
$\frac{y}{b/2} = 95$	Lower				
	.950	.077	.022	.151	.201
	.850	.065	.013	.094	.150
	.750	.018	.024	.115	.185
	.650	.035	.066	.146	.219
	.550	.084	.106	.186	.243
	.450	.113	.123	.203	.217
	.350	.140	.162	.210	.161
	.250	.166	.212	.171	.080
	.150	.213	.046	.021	.116
	.075	.155	.097	.172	.256
	.025	.060	.262	.326	.382

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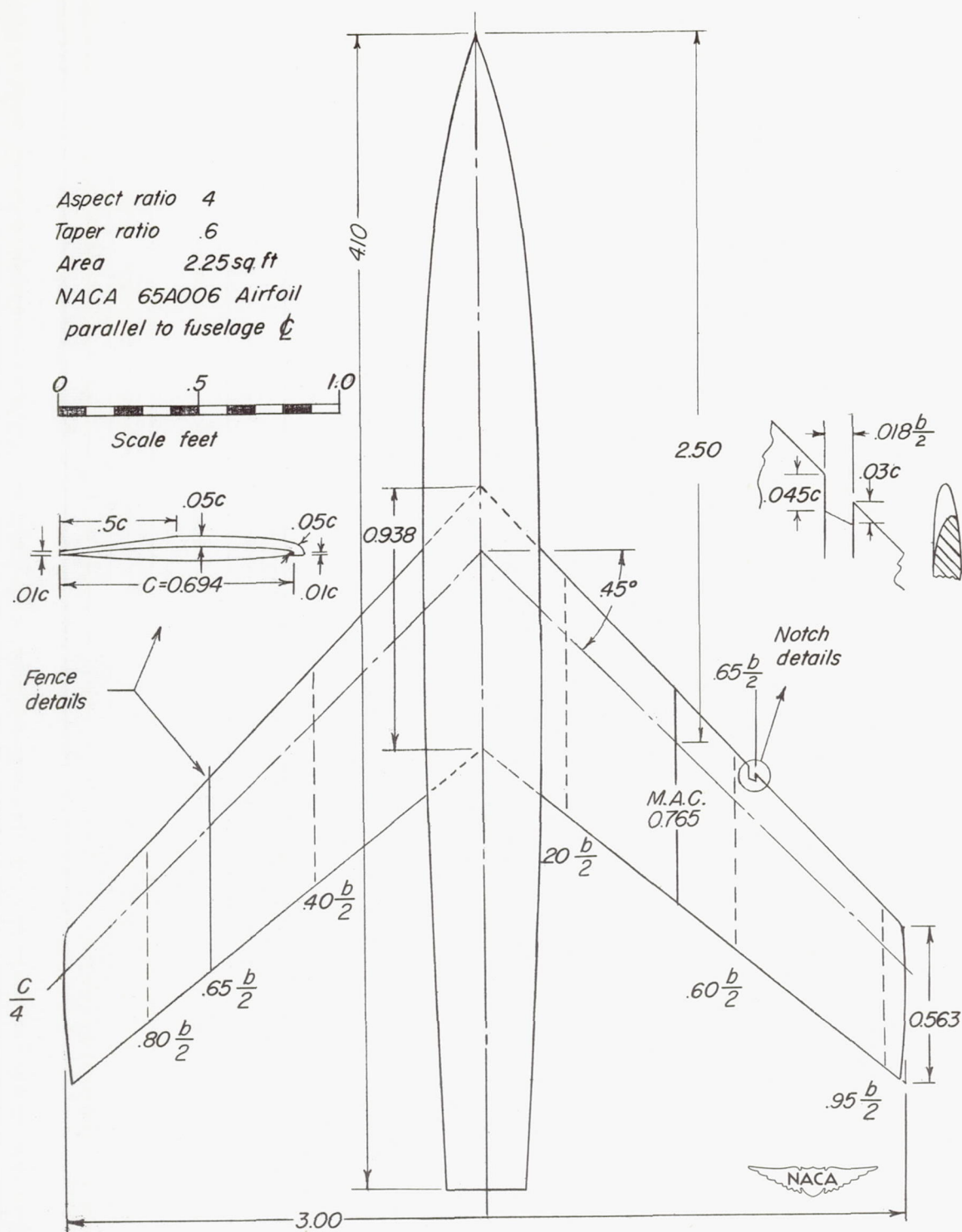
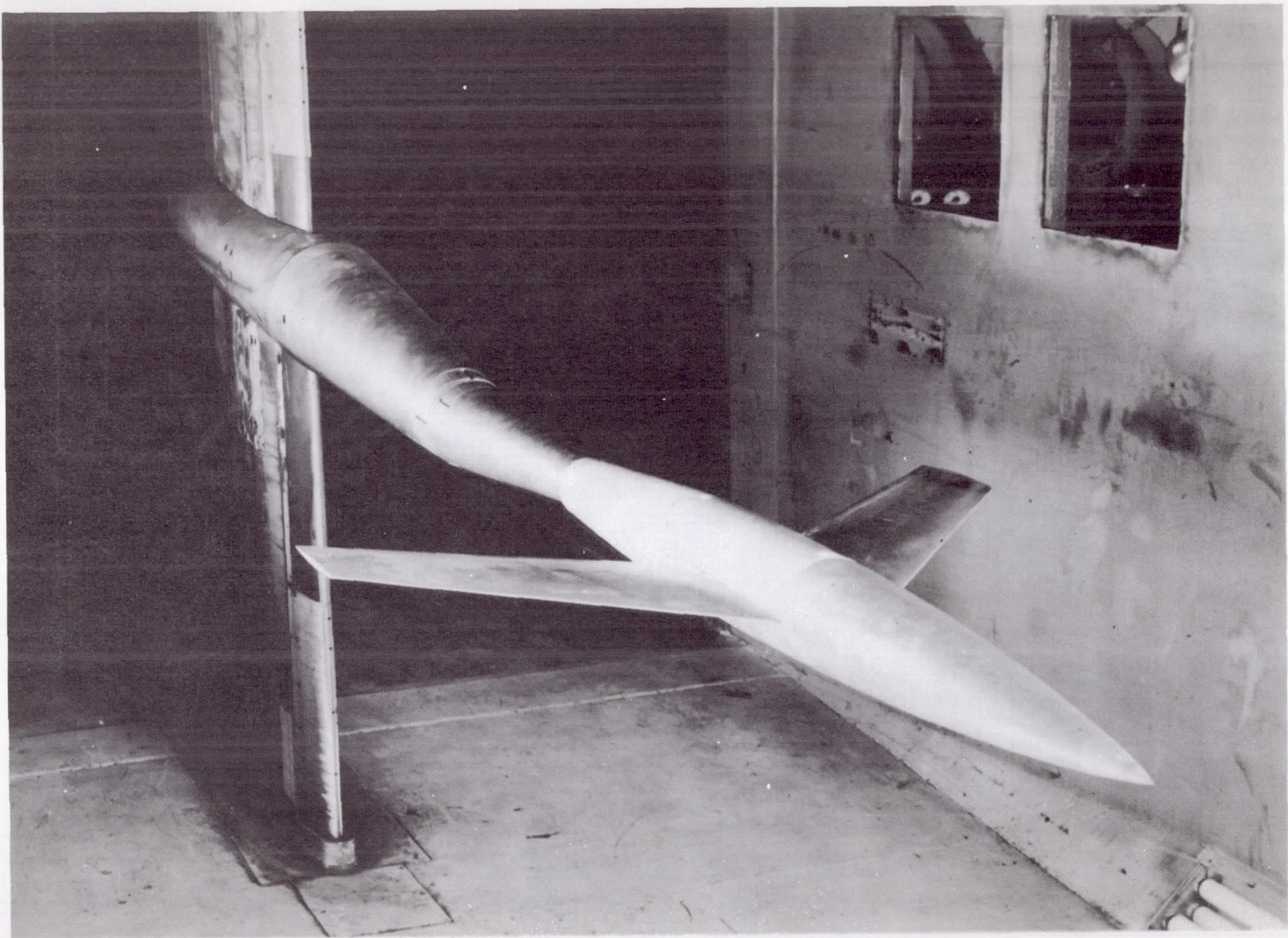


Figure 1.- Drawing of the model tested. All dimensions in feet.



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Figure 2.- Photograph of the model installed on the variable-angle-of-attack support system.

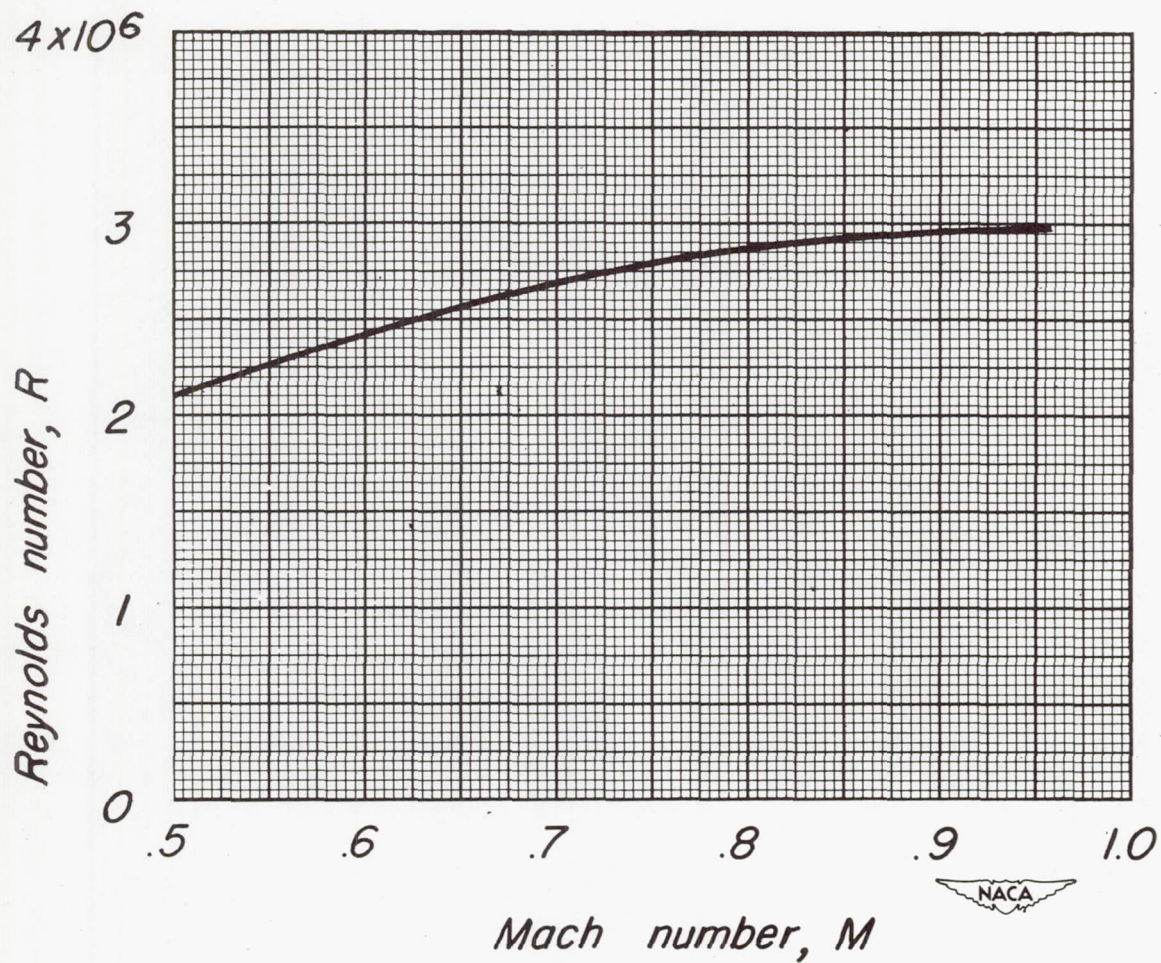


Figure 3.- Variation of mean test Reynolds number with Mach number based on the mean aerodynamic chord of the wing.

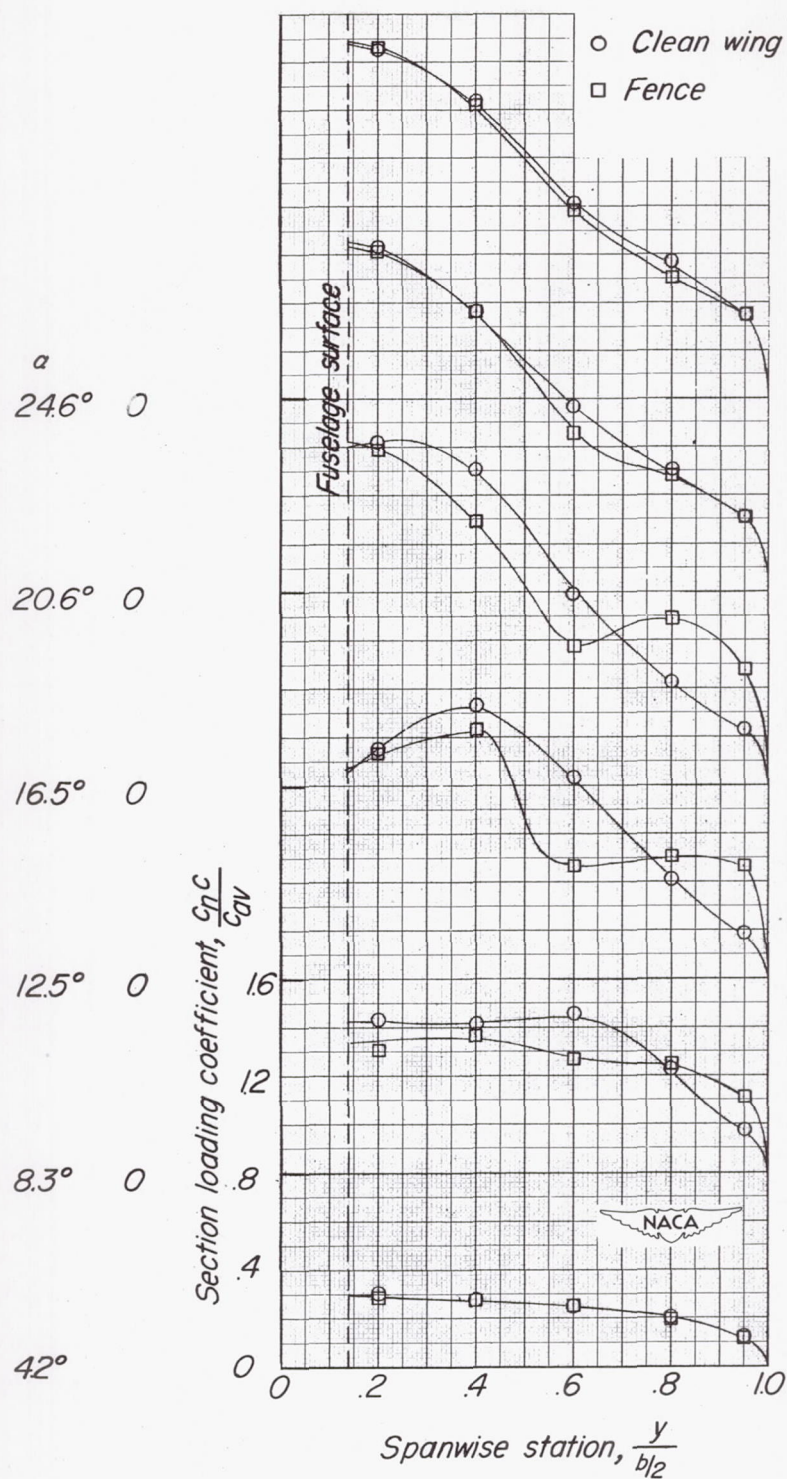
(a) $M = 0.50$.

Figure 4.- Effect of the fence and notch on the spanwise load distribution.

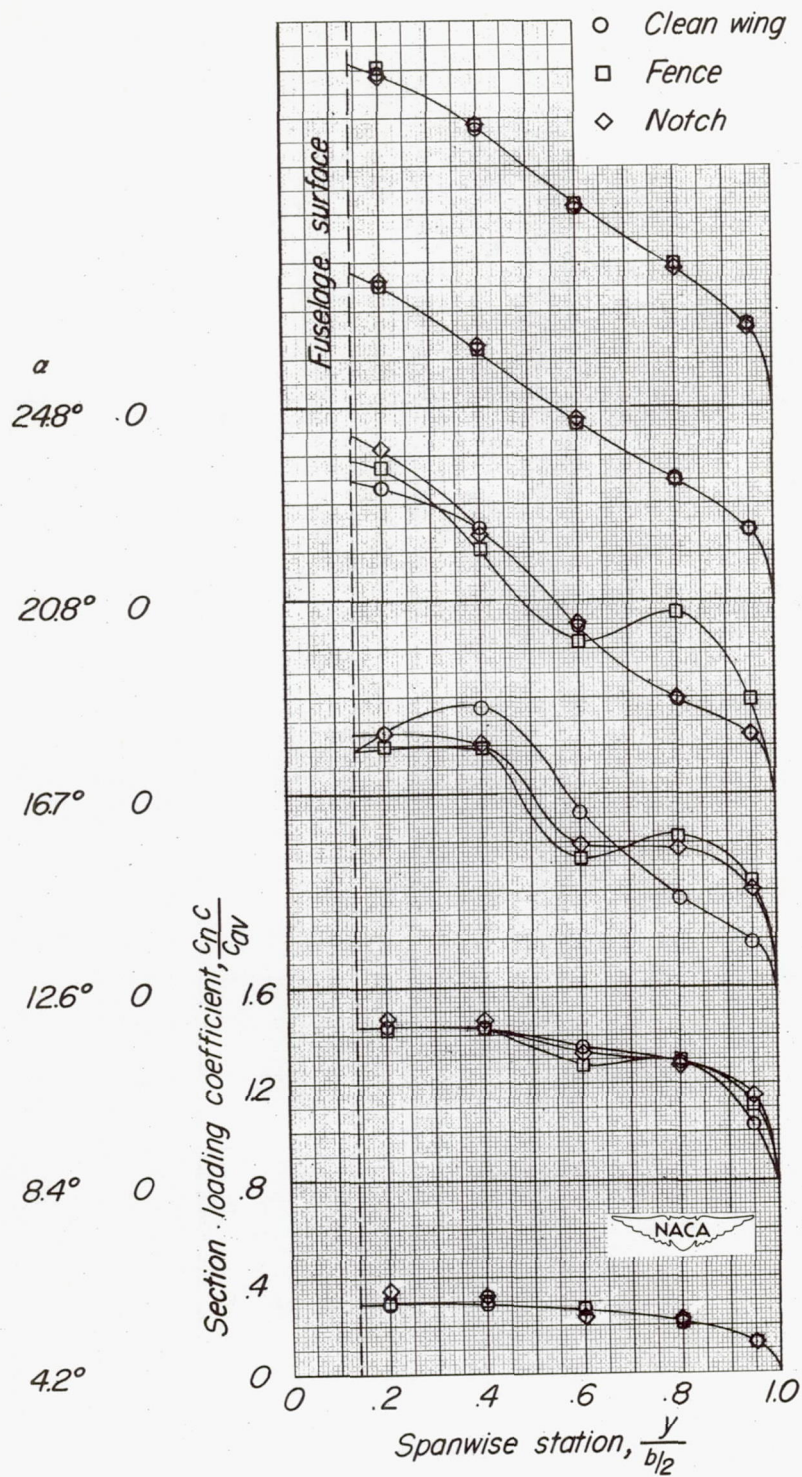
(b) $M = 0.70$.

Figure 4.- Continued.

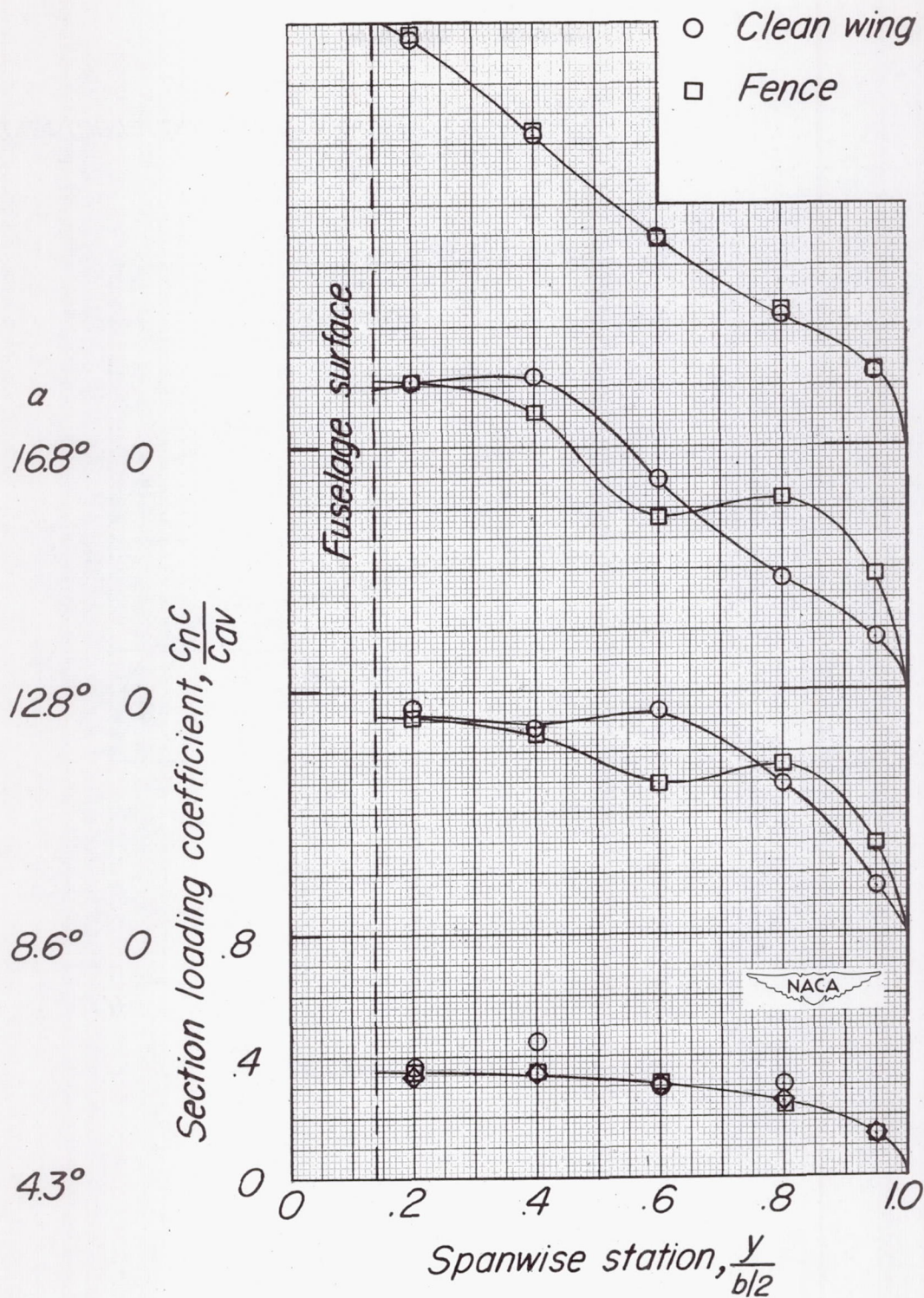
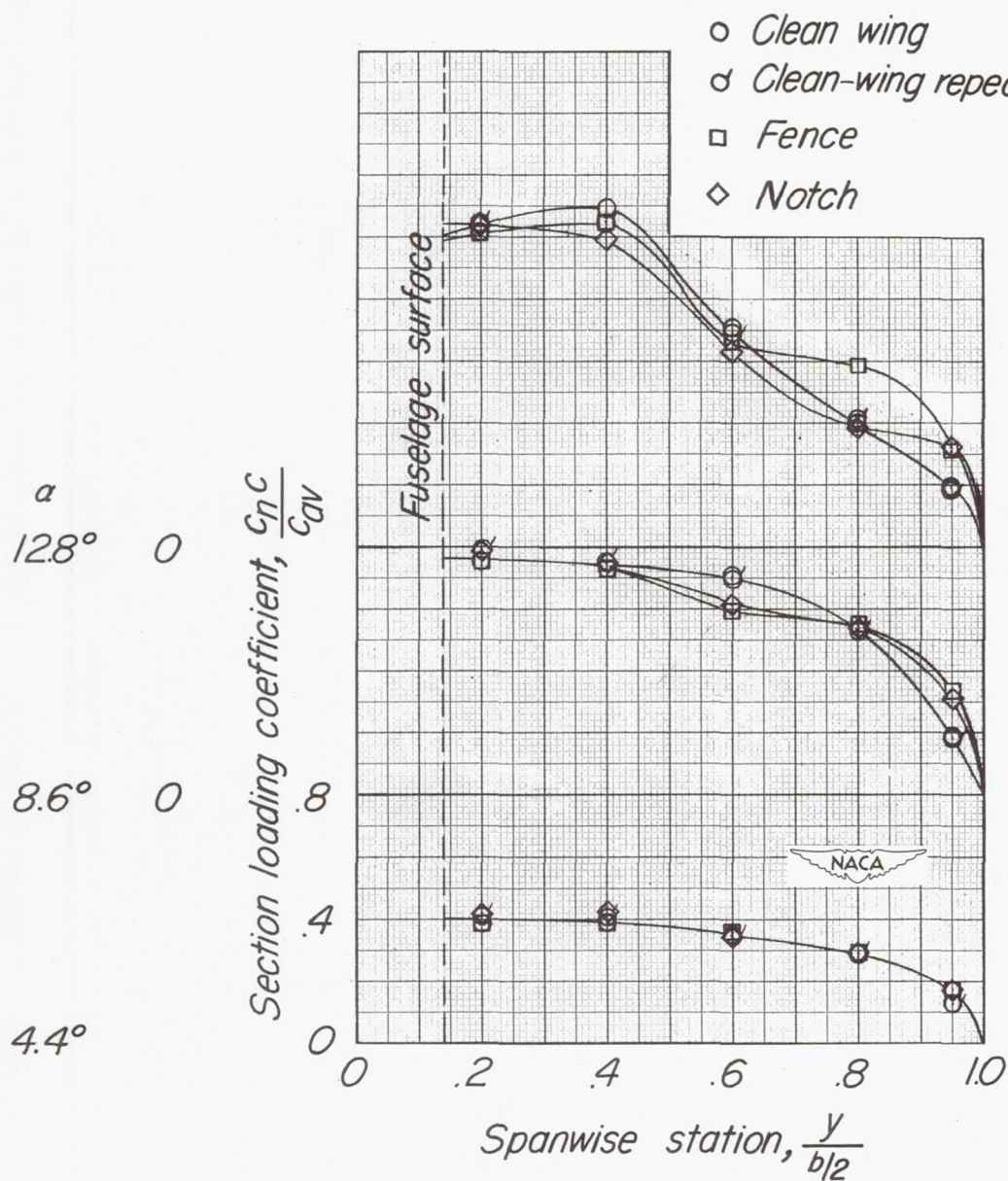
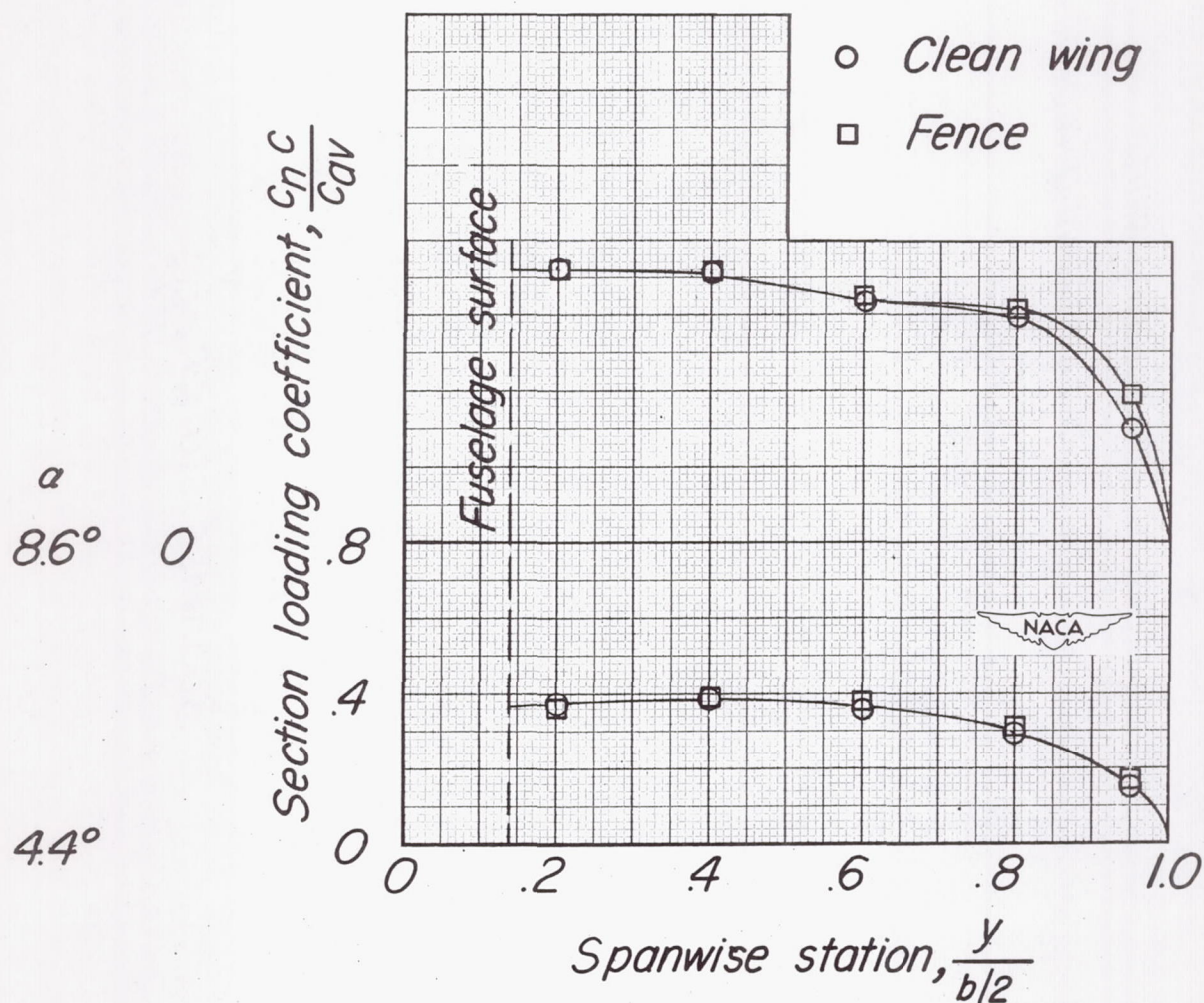
(c) $M = 0.85$.

Figure 4.- Continued.



(d) $M = 0.91$.

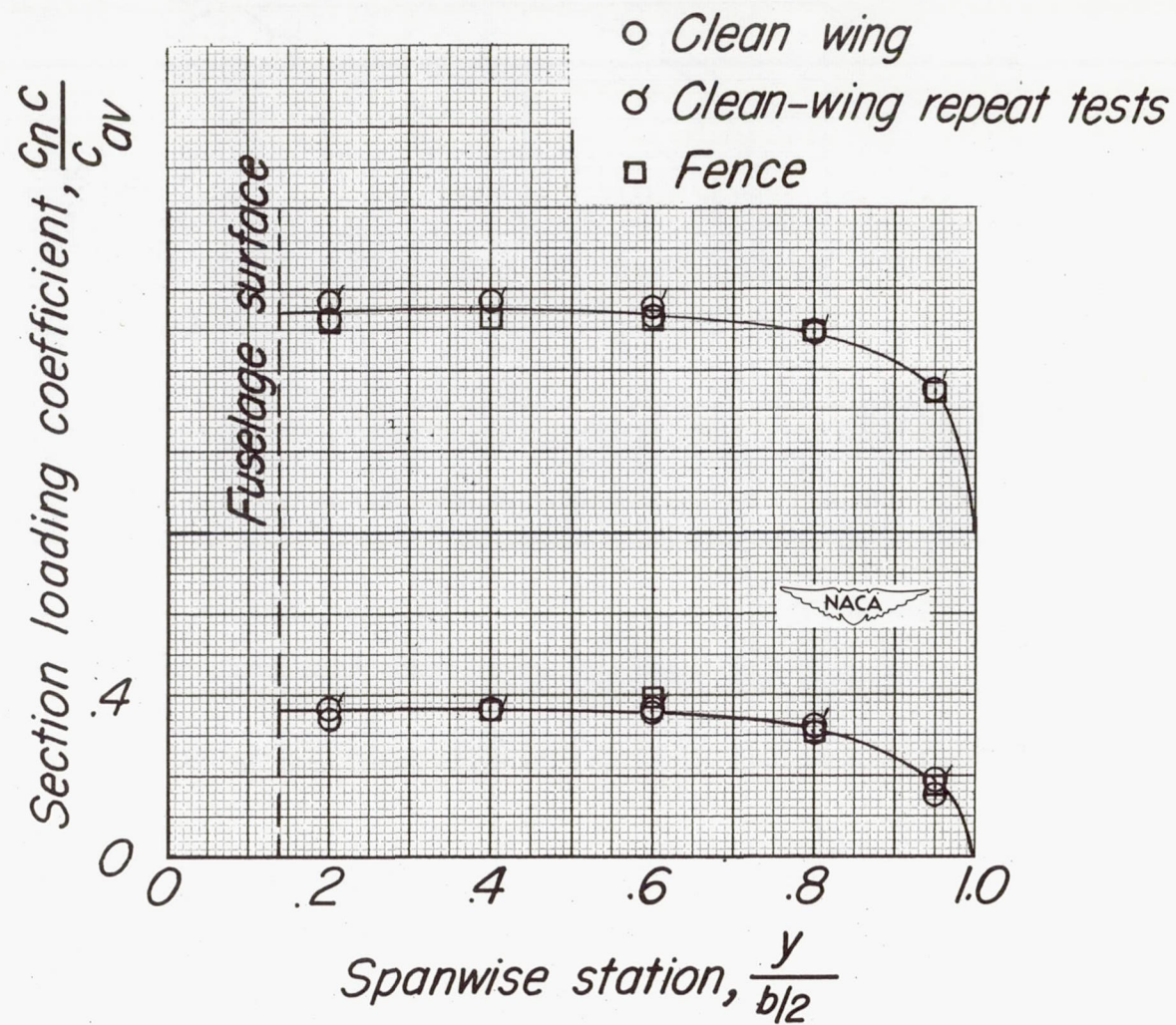
Figure 4.- Continued.



(e) $M = 0.93$.

Figure 4.- Continued.

α
6.5° 0
4.4°



(f) $M = 0.95$.

Figure 4.- Concluded.

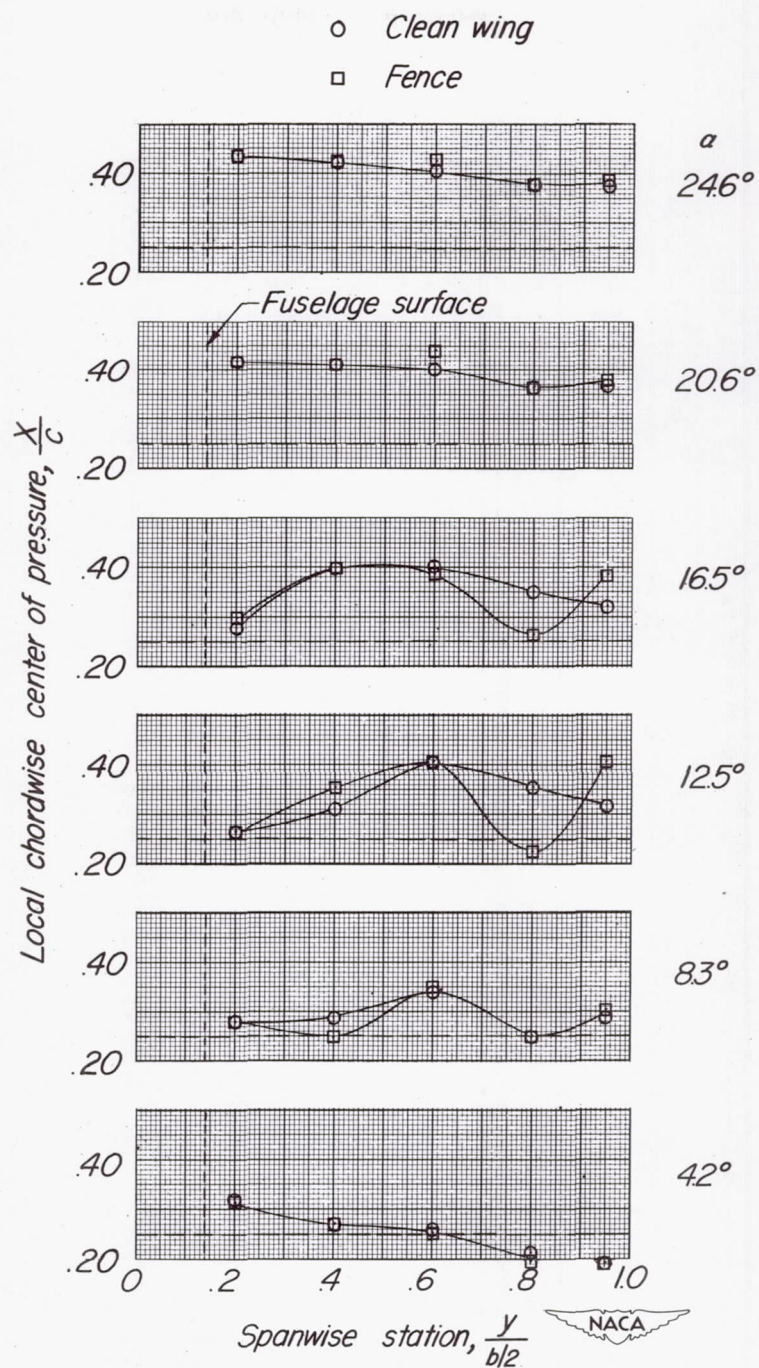
(a) $M = 0.50$.

Figure 5.- Effects of the fence and notch on the local chordwise centers of pressure.

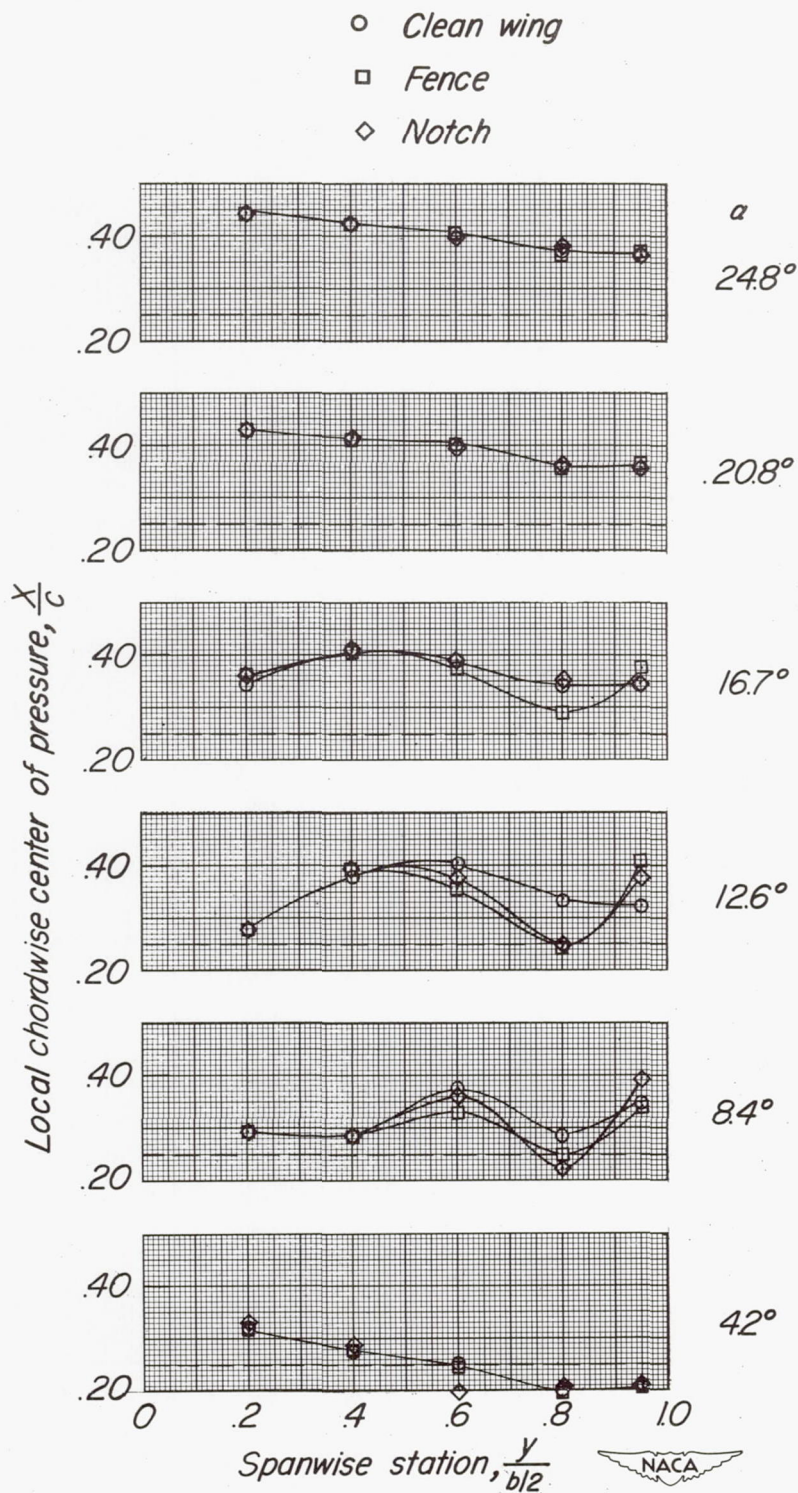
(b) $M = 0.70$.

Figure 5.- Continued.

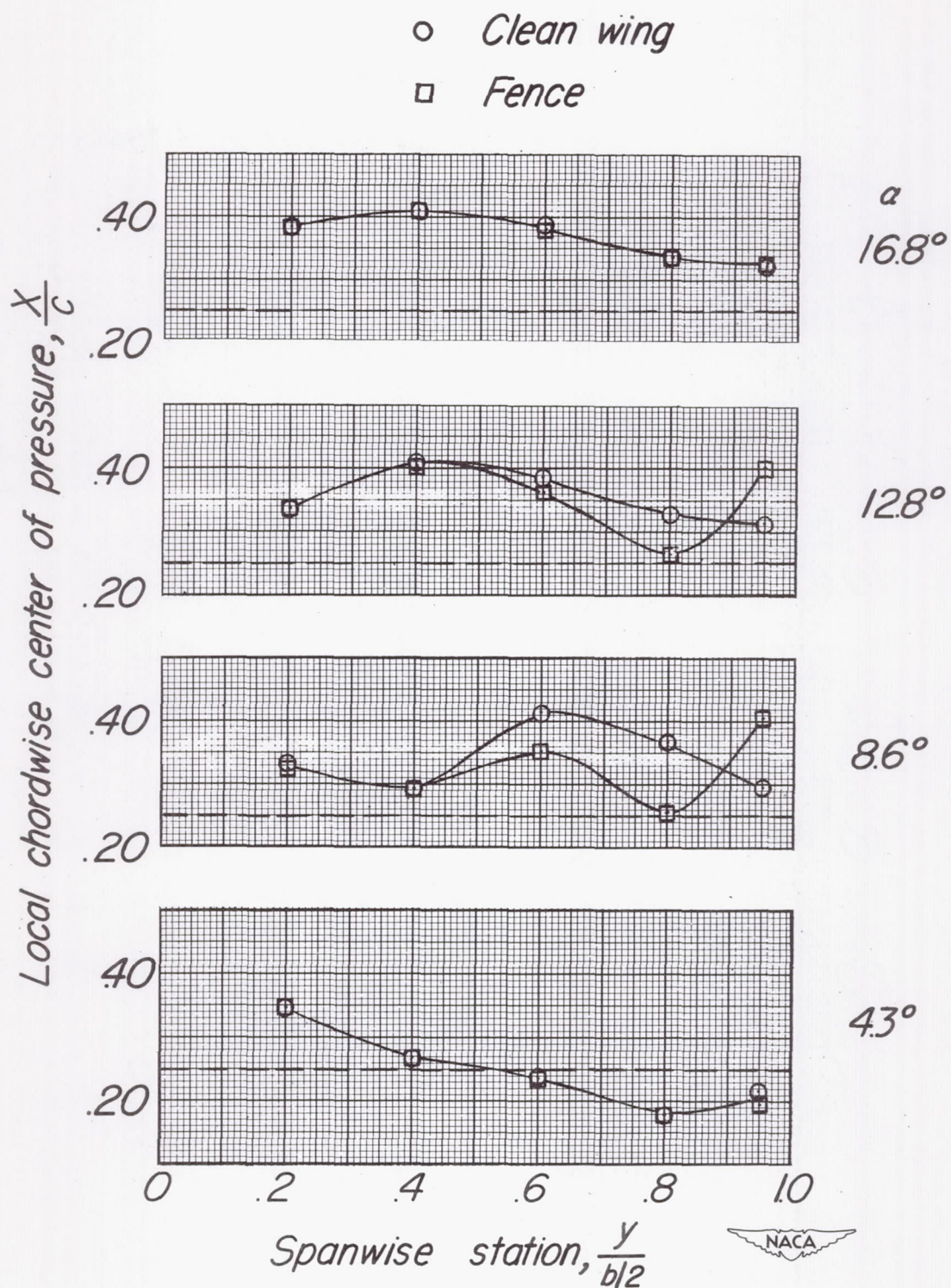
(c) $M = 0.85$.

Figure 5.- Continued.

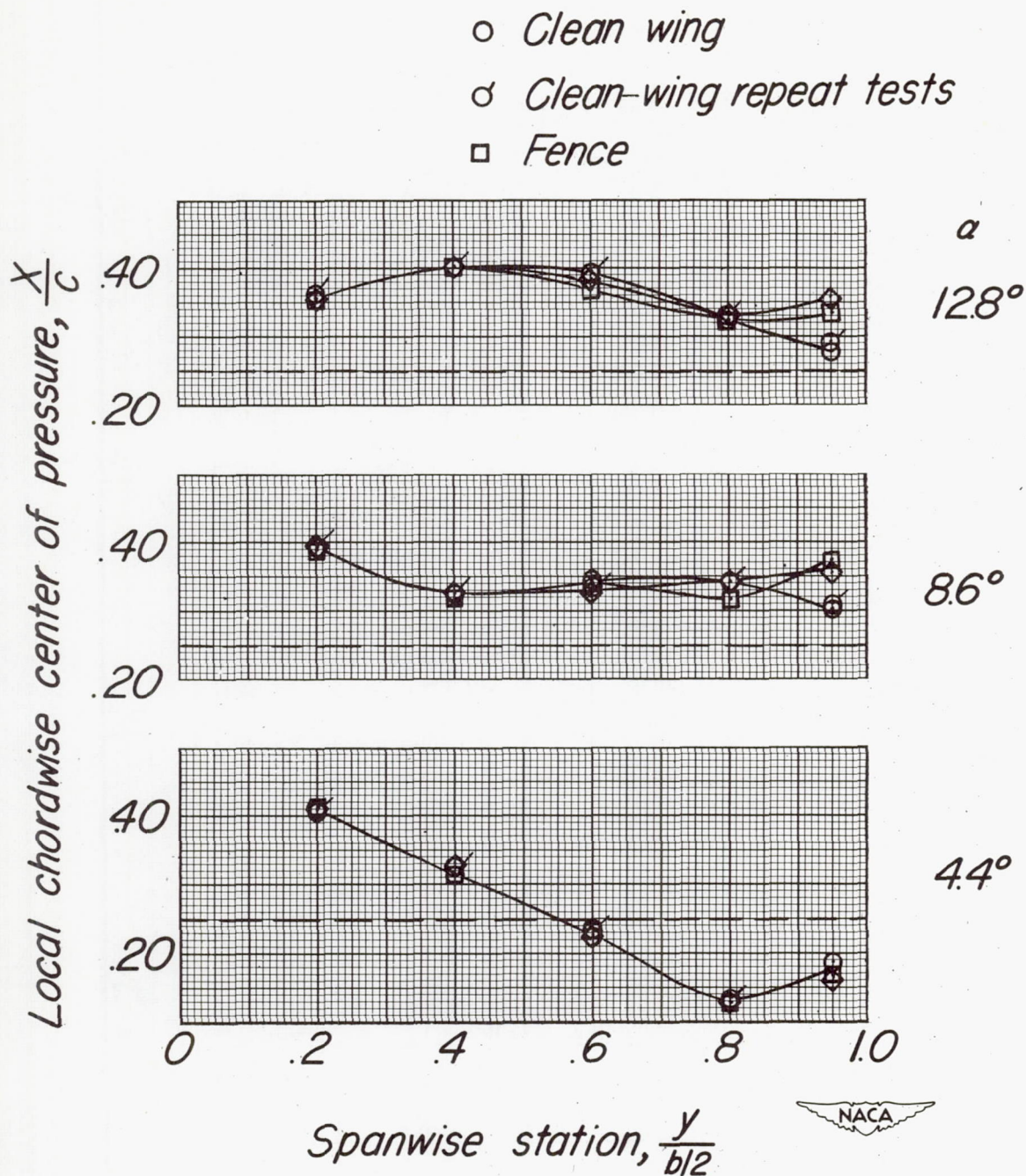
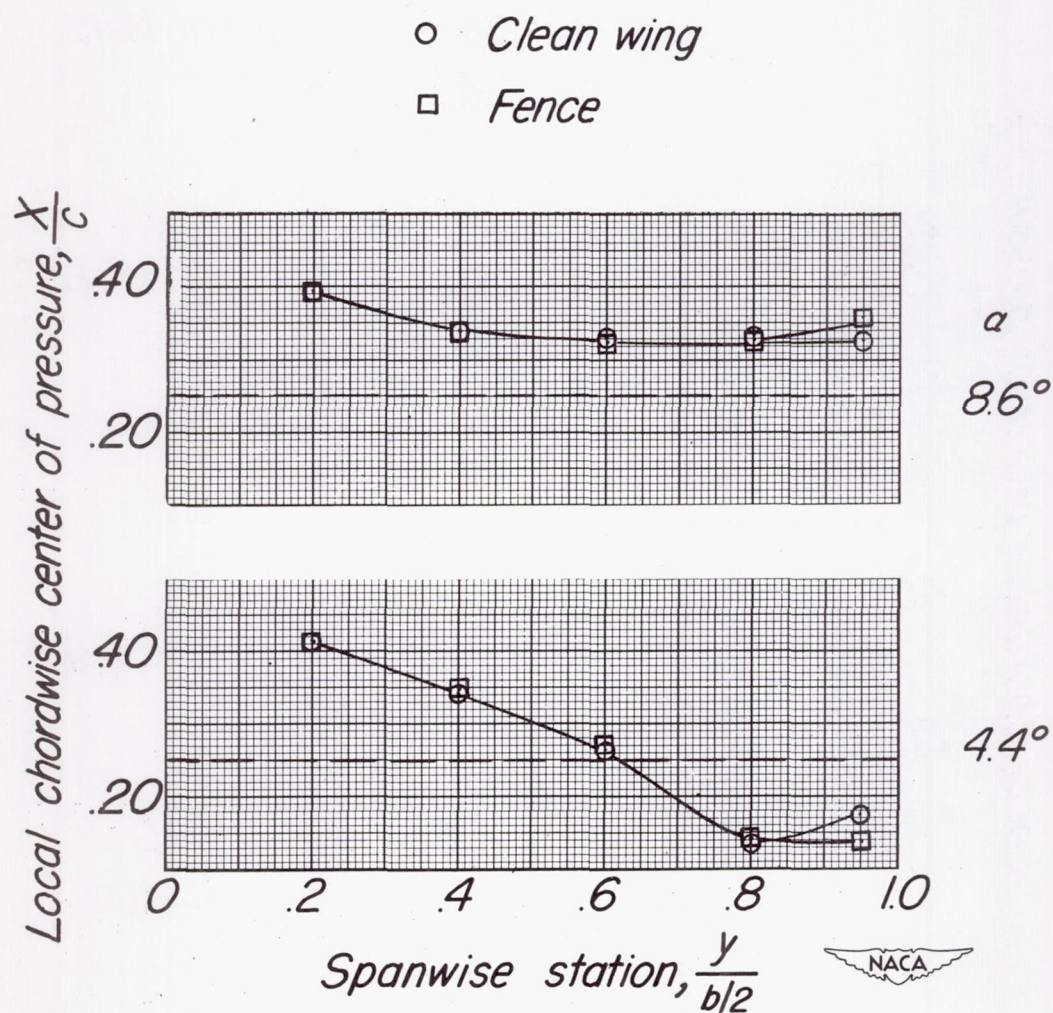
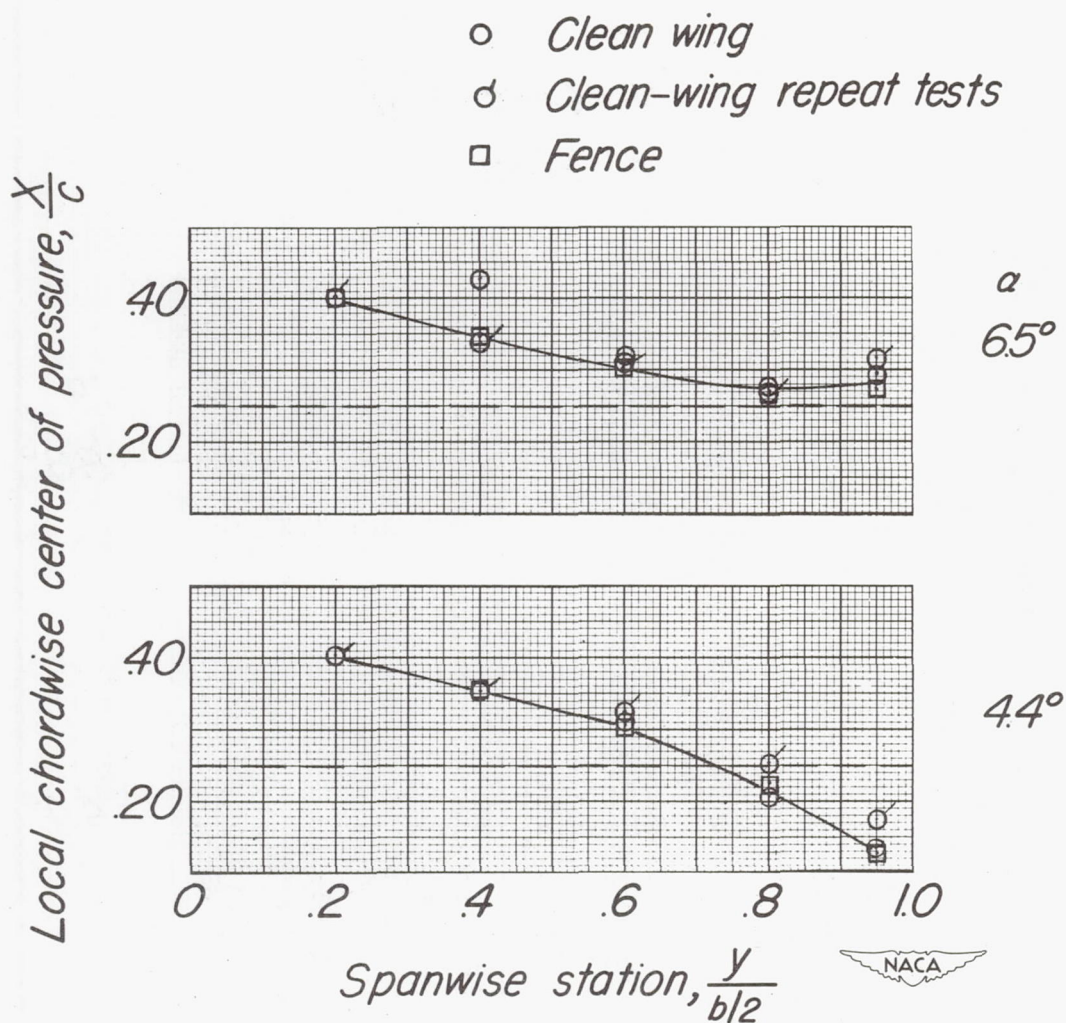
(d) $M = 0.91$.

Figure 5.- Continued.



(e) $M = 0.93$.

Figure 5.- Continued.



(f) $M = 0.95$.

Figure 5.- Concluded.

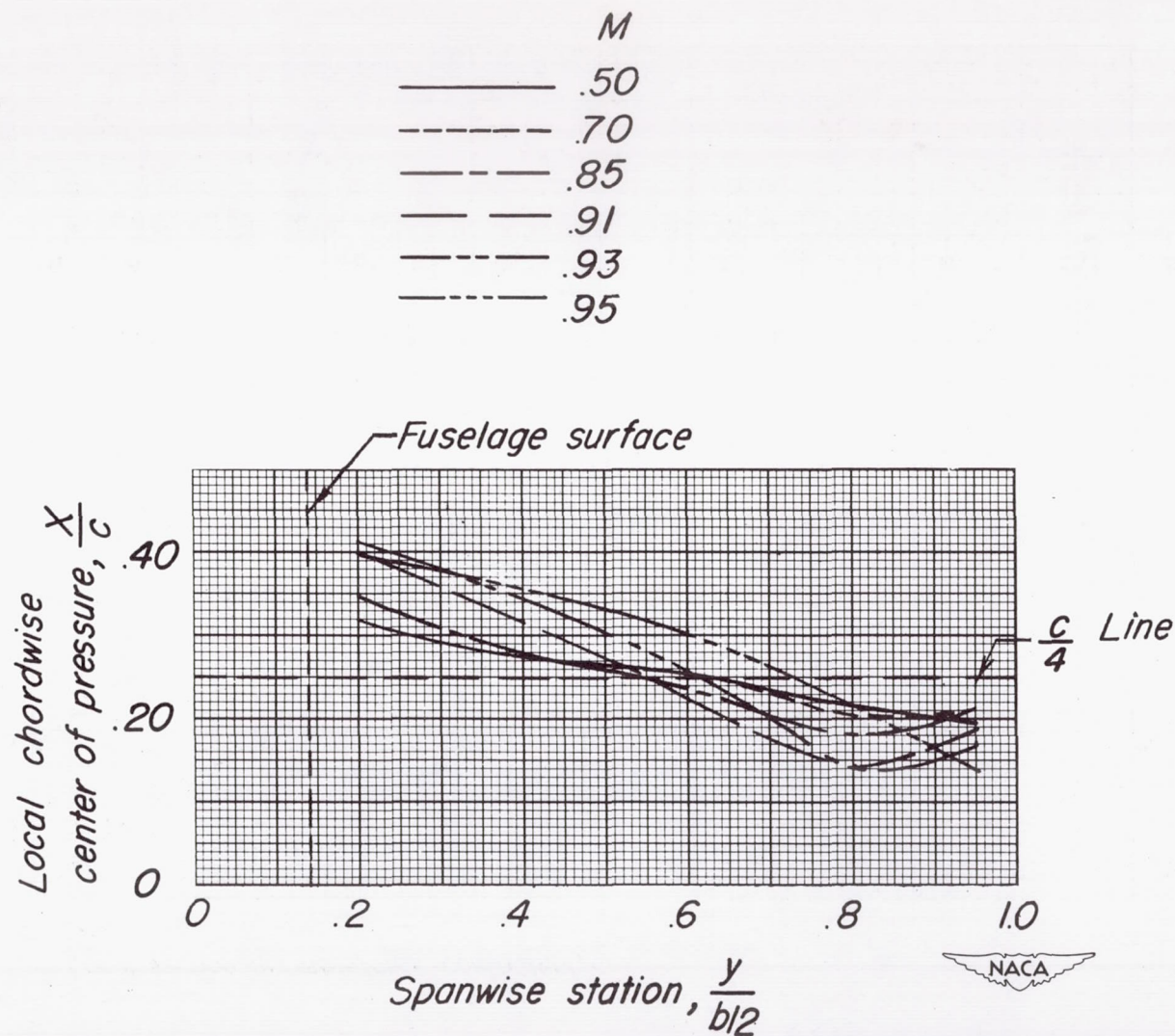


Figure 6.- Effect of Mach number on the local chordwise center of pressure.
 $\alpha \approx 4^\circ$; clean wing.

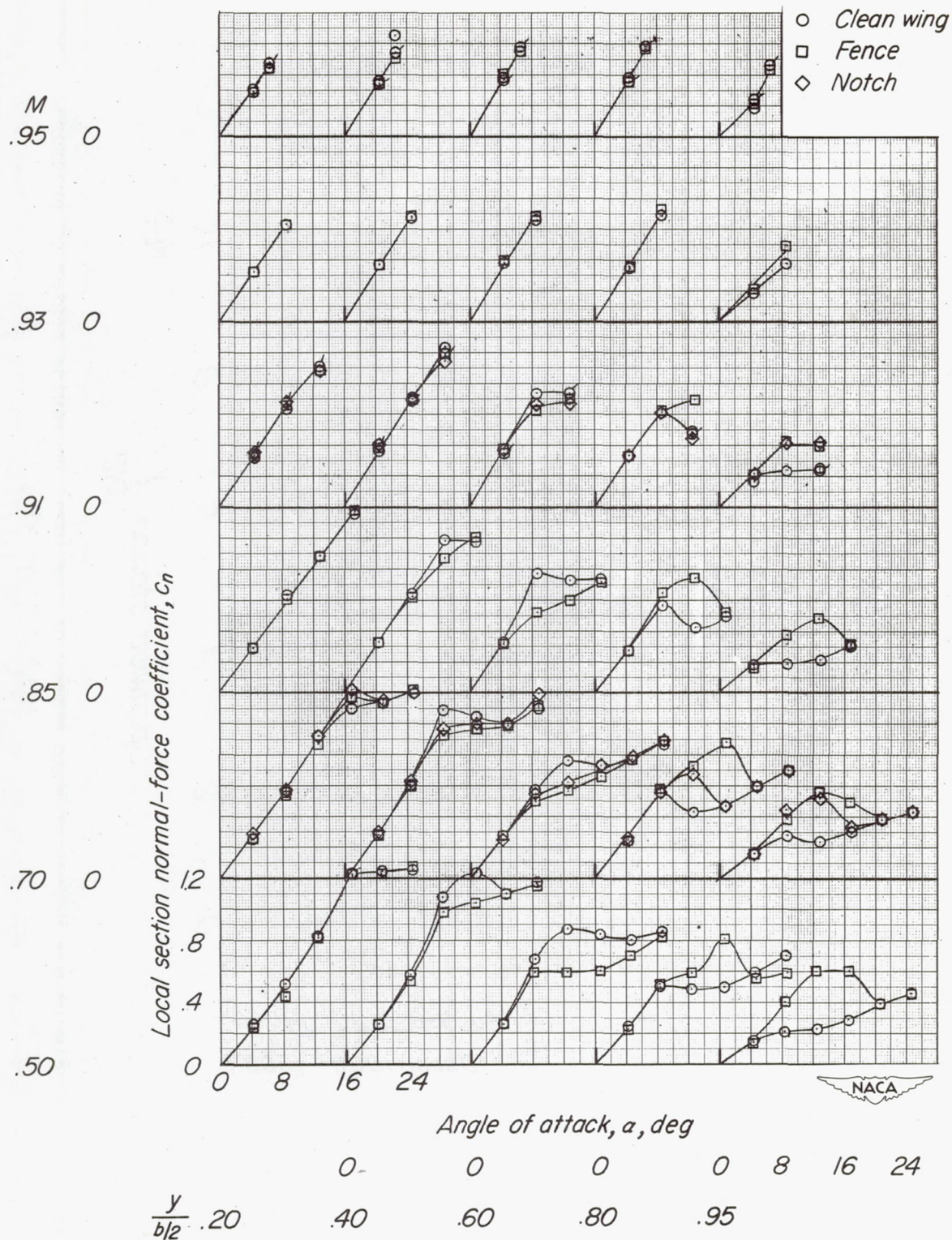


Figure 7.- Local normal-force curves for each of the spanwise stations.

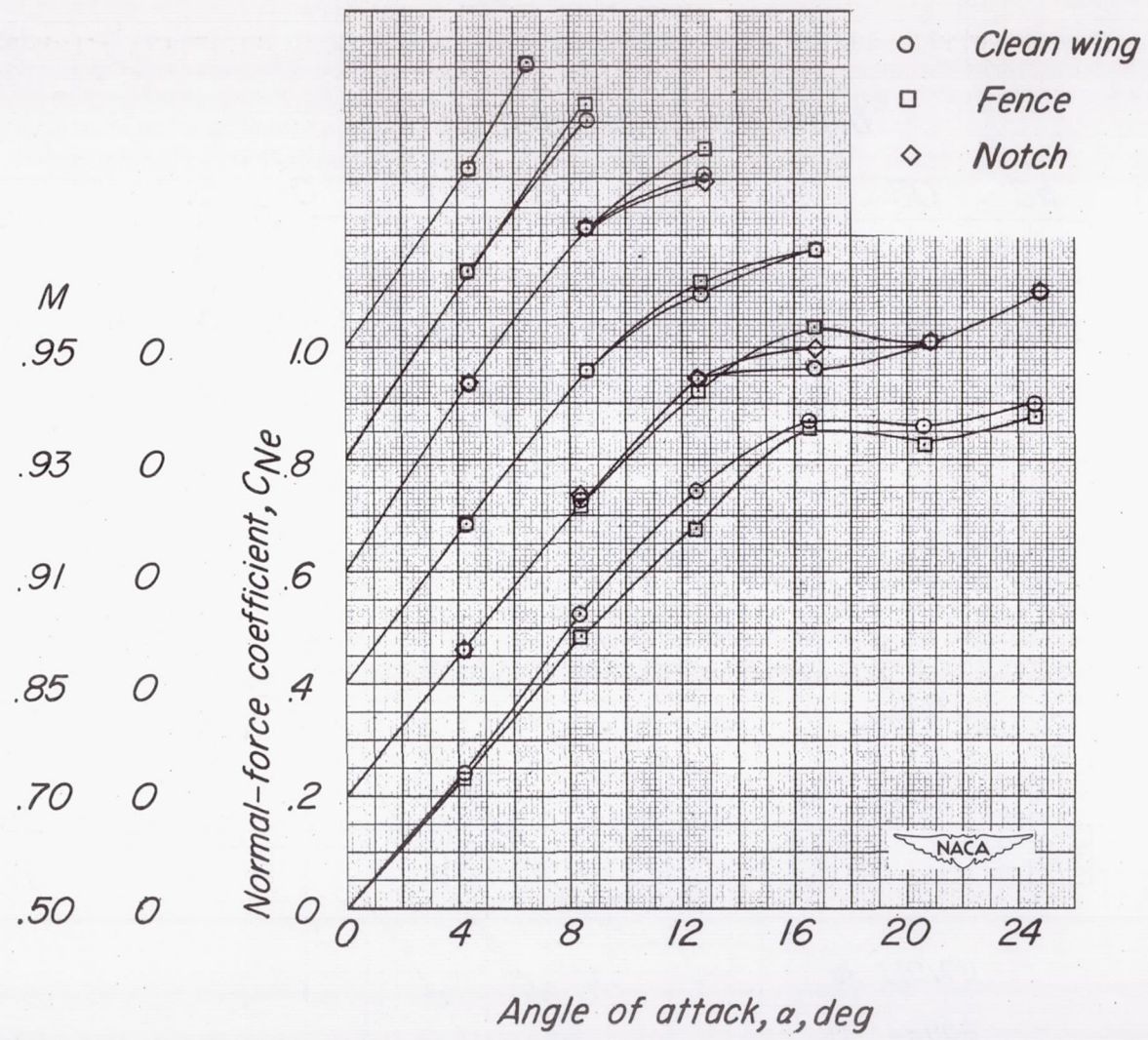


Figure 8.- Variation of the total normal-force coefficient of the exposed wing with angle of attack.

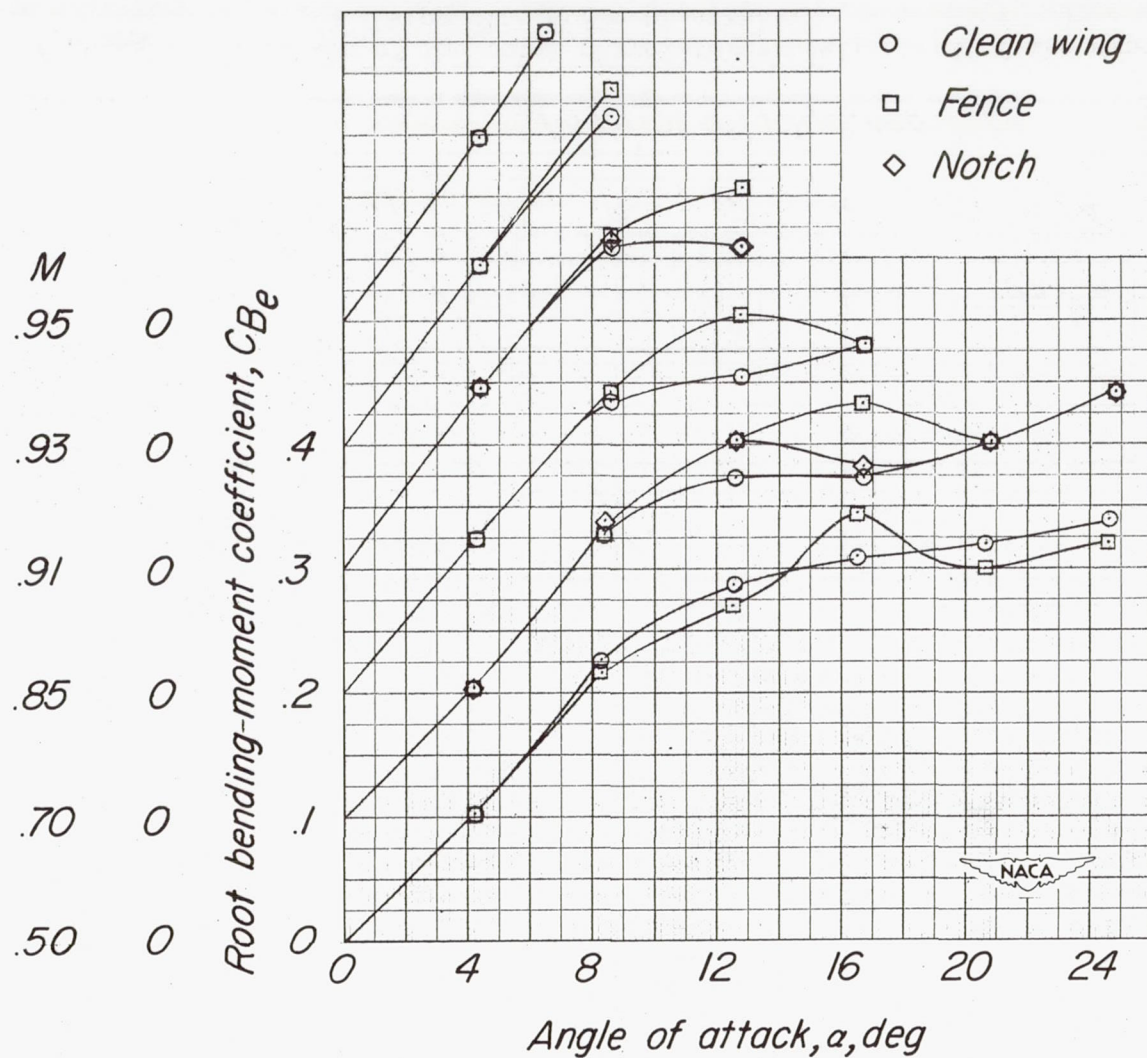


Figure 9.- Variation of the root bending-moment coefficient of the exposed wing with angle of attack.

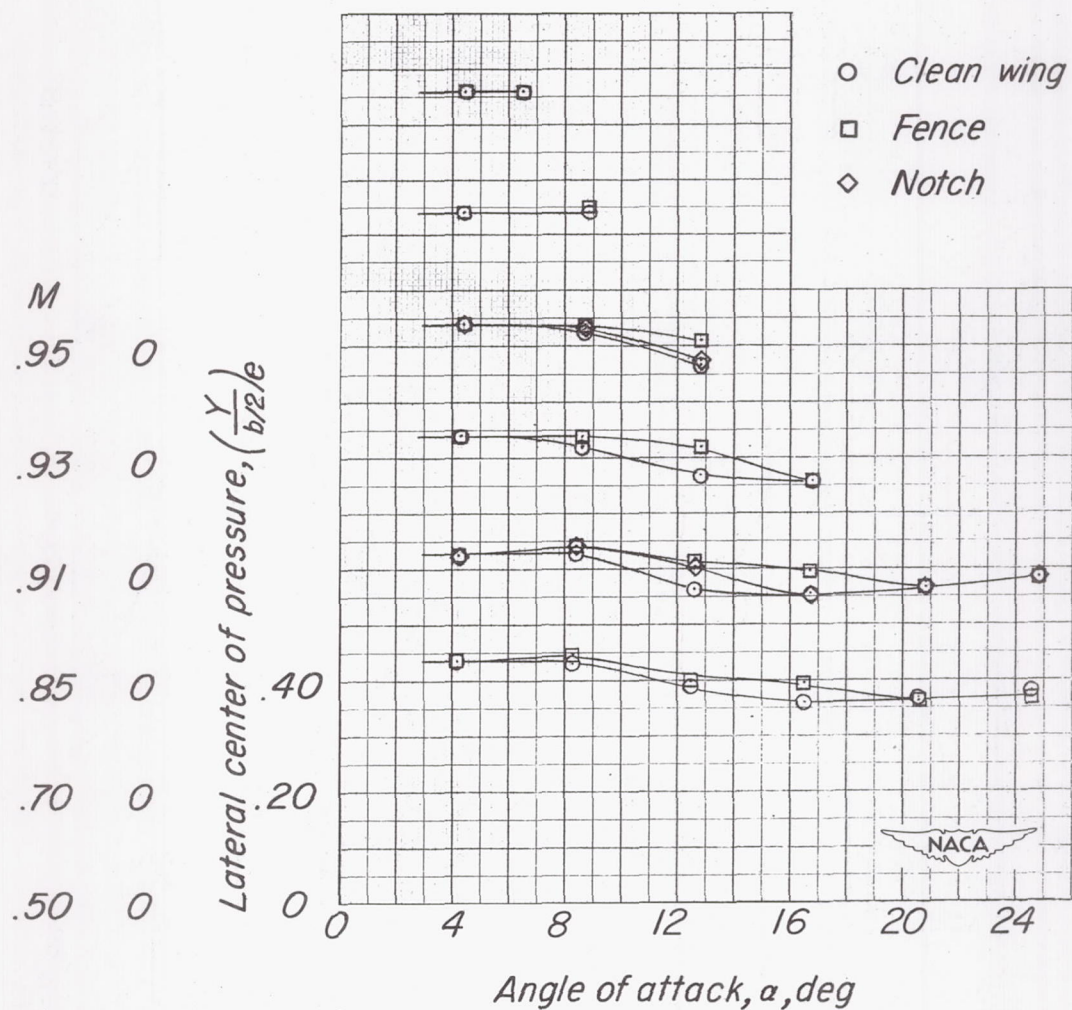
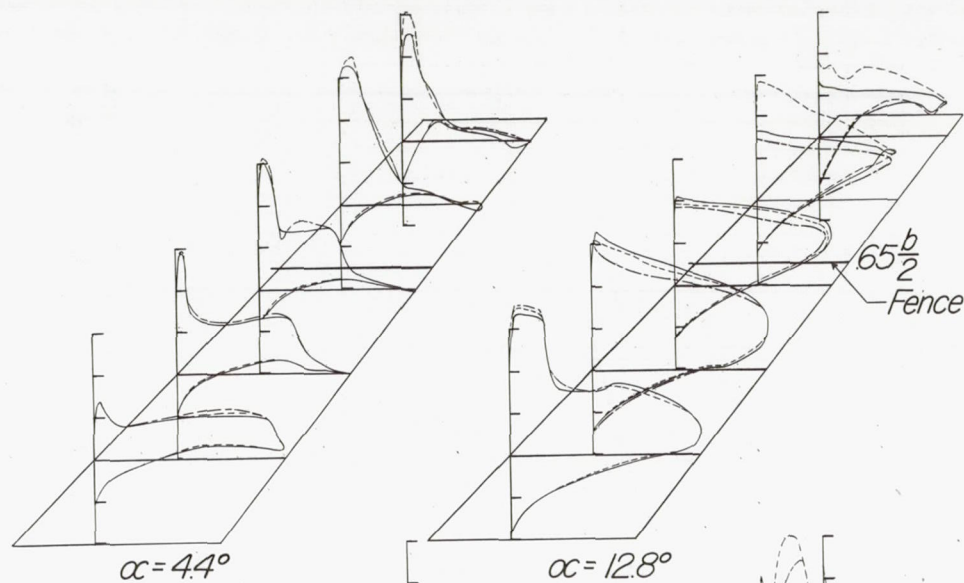


Figure 10.- Variation of the lateral center of pressure of the load on the exposed wing with angle of attack measured from the fuselage surface.

$M=91$ 

— Clean wing
 --- Fence on
 - · - Notch

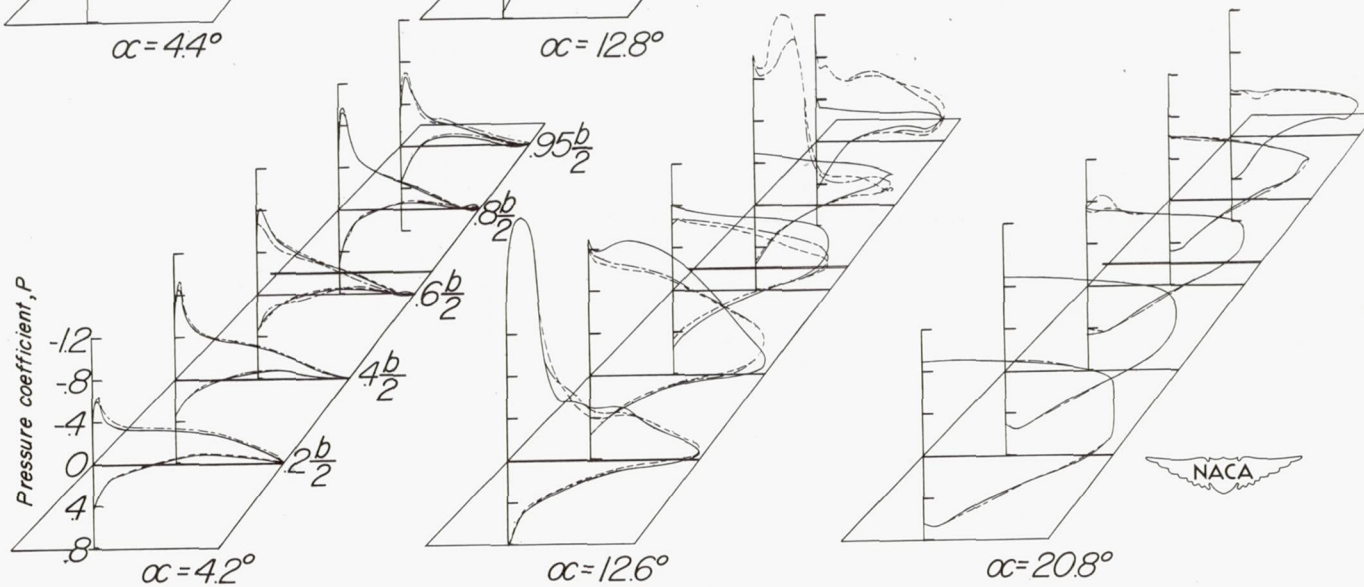
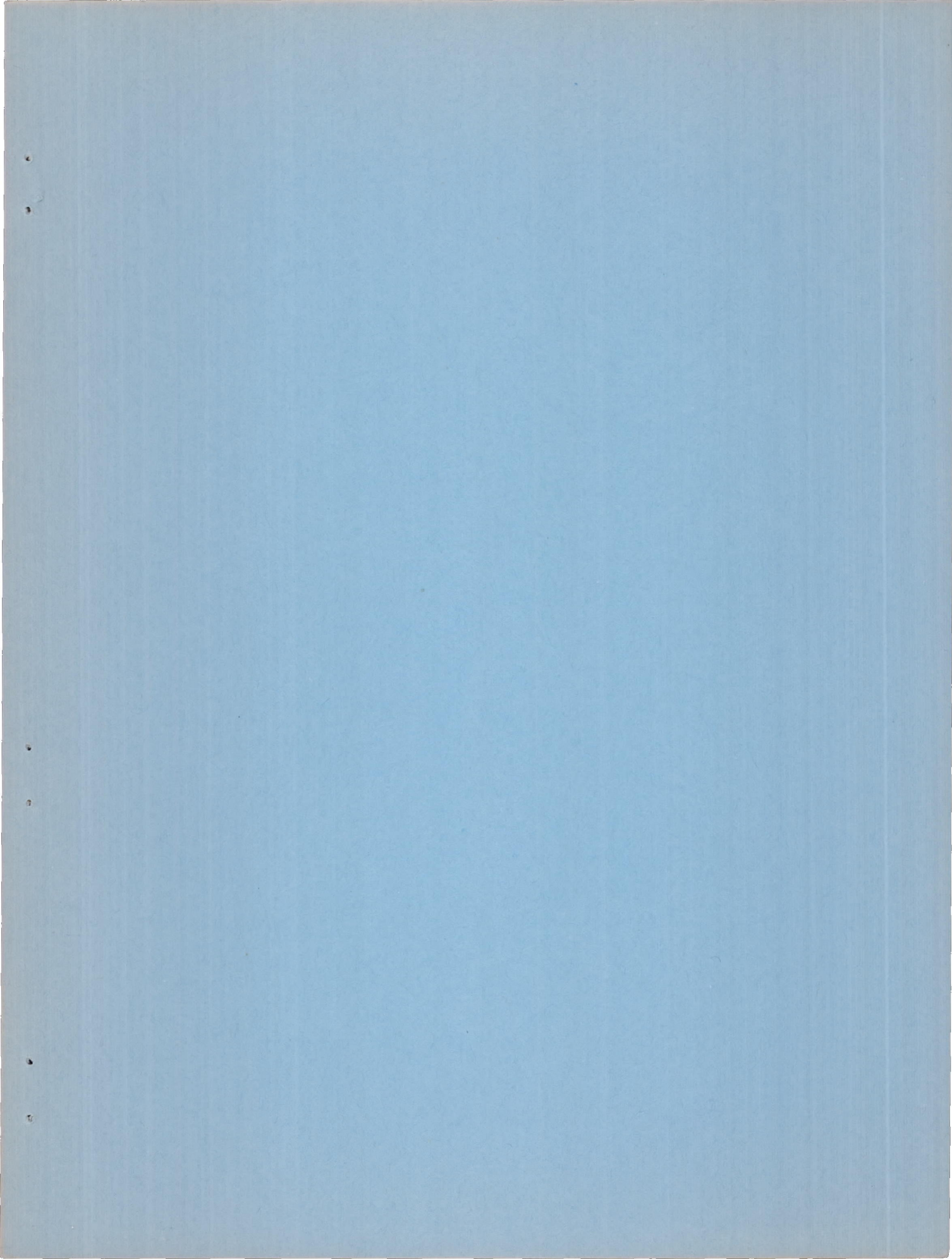
 $M=70$ 

Figure 11.- Effect of fences on the chordwise load distribution.



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